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ECONOMIC SURVEY OF EUROPE IN 1980

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ECONOMIC SURVEY OF EUROPE IN 1980

Prepared by the

SECRETARIAT OF THE
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Note

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PREFACE

The present *Survey* is the thirty-fourth in a series of reports prepared by the secretariat of the Economic Commission for Europe to serve the needs of the Commission and to help in reporting on world economic conditions—a task which the Economic and Social Council of the United Nations has entrusted to the Department of Economic and Social Affairs.

This *Survey* is published on the responsibility of the secretariat, and the views expressed in it should not be attributed to the Commission or to its participating Governments.

The pre-publication text of this *Survey* was completed on 14 March 1981 and made available to the 36th session of the Economic Commission for Europe. The final text, incorporating minor changes, was completed on 10 April 1981.

EXPLANATORY NOTES

The following symbols have been used throughout this *Survey*:

.. = not available or not pertinent;
— = nil or negligible;
* = estimate by the secretariat of the Economic Commission for Europe;
| = signifies a break in the comparability of a statistical series.

In referring to combinations of years, the use of an oblique stroke—e.g. 1979/80 signifies a twelve-month period (say from 1 July 1979 to 30 June 1980). The use of a hyphen—e.g. 1978-1980—normally signifies either an average of, or a total for, the full period of calendar years covered (including the end-years indicated).

Unless the contrary is stated, the standard unit of weight used throughout is the metric ton. The definition "billion" used throughout is one thousand million. Minor discrepancies in totals and percentages are due to rounding.

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CHAPTER 1

RECENT ECONOMIC DEVELOPMENTS IN WESTERN EUROPE

OVER-ALL VIEW

The years 1980 and 1981 taken together appear to be a period of near-stagnation for western Europe and North America. For industrial western Europe (13 countries) the moderate cyclical upswing which started at the beginning of 1978 ended in the first quarter of 1980 under the shock of the second oil price rise and the ensuing restrictive policies. By the last quarter of 1980, the level of industrial production was about 5 per cent lower than in the first quarter and forward indicators do not suggest any recovery for the first half of 1981. All major demand components declined between 1979 and 1980, the deceleration being stronger for household consumption than for fixed investment. With the usual business cycle time-lag, fixed investment is expected to bear the brunt of the recession in 1981 when a decline is projected for the region as a whole (see text table). Individual country developments differed considerably in 1980. In Denmark and the United Kingdom there was a decline in GDP while in Austria, Italy and (especially) Finland there were relatively high rates of growth. For 1981, most countries expect growth rates within the range of plus and minus one per cent. These modest forecasts reflect the continuation of restrictive policies, while the similarity of country developments reflect the feeling that in the present circumstances no country can go for growth by itself. The locomotive strategy, which played a positive role after the 1974-1975 recession, is hardly applicable at the present time as there is no major country (in western Europe or in North America) which enjoys simultaneously a low inflation rate and a comfortable balance-of-payments position.

In contrast with developments in 1974-1975, the present recession is deeper in southern Europe than in either industrial western Europe or North America. Attempts to follow expansionary policies have met with increasing difficulties in these countries where the oil bill now represents an exceptionally high proportion of their total exports. Southern Europe did not participate in the output revival which occurred in industrial western Europe in 1979, and 1980 GDP in Greece, Portugal, Spain and Turkey, taken together, rose by less than one per cent. Inflationary forces were particularly strong and the foreign deficit (in terms of GDP) was much larger than in industrial western Europe. Only a moderate recovery is expected in 1981.

In the United States, the current recession appears to be shorter than in western Europe. It lasted only one quarter in terms of GDP (the second quarter of 1980) and two quarters in terms of industrial production (the second and third). In the last quarter there was a recovery in output which was stronger than generally expected (GDP rose by about 4 per cent, at an annual rate), but short-term prospects are uncertain and largely depend on the implementation of the policy measures announced by the new Administration. According to forecasts prepared by the previous Administration, GDP was expected to increase by 1.75 per cent between the last quarter of 1980 and the last quarter of 1981.

GDP and industrial production in western Europe and North America

(*Annual percentage changes, in volume*)

	Gross domestic product	*Gross fixed capital formation*	*Private consumption*	*Industrial production*
Industrial western Europe [a]				
1979	3.5	3.6	3.6	4.9
1980	1.5	2.7	1.6	0.5
1981 [b]	0.2	−1.0	0.8	−2.0
Southern Europe [c]				
1979	1.5	−1.7	1.6	1.9
1980	0.8	−1.9	0.8	1.3
1981 [b]	2.8	..	..	..
North America [d]				
1979	3.1	3.3	2.8	4.4
1980	−0.4	−6.5	0.2	−3.5
1981 [b]	1.7	0.4 *	1.3	1.5-2.5 *

[a] Austria, Belgium, Denmark, Finland, Federal Republic of Grmany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom.

[b] Aggregation of national forecasts.

[c] Greece, Portugal, Spain and Turkey.

[d] Canada and the United States.

On the face of it, the present recession appears milder than the previous one (1974-1975) in both western Europe and North America. However, when the comparison is not limited to the years 1980-1981 and 1974-1975 but is extended to cover the period of a full cycle, the smaller present decline appears more as the mirror image of a more moderate cyclical upswing. This narrower cyclical variation is entirely due to fixed investment which displayed (especially in western Europe) very little dynamism after the 1974-1975 recession. There are at present few indications of any sizeable revival of investment in the near future.

The marked slowing-down in output has led to a disturbing increase in unemployment. Between December 1979 and December 1980 unemployment rose by 1.8 million persons in industrial western Europe. The most recent developments are not yet known for all countries of the region, but those that are indicate a further acceleration. The recent upswing in unemployment started from much higher levels than in the previous recession, and in the winter of 1980-1981 unemployment reached about 7.5 per cent of the labour force. In 1980, in contrast with developments in previous years, unemployment grew faster for men than for women and there was a much larger contribution to the total increase of men in the central age group (25-49 years). The reduction of employment could no longer be accommodated only by such devices as early retirement or postponement of the recruitment of young people. The weakening of demand has coincided with a particularly large increase in the potential labour force—because of past trends in fertility—which is estimated to be increasing at present by more than 1 million persons a year in industrial western Europe. For 1981, total employment is likely to decline somewhat on present policies.

The deterioration in the terms of trade has led to a large deterioration of the foreign current accounts of western Europe. For industrial western Europe, the deficit rose from about $17 billion in 1979 to $50 billion in 1980, that is, from 0.6 per cent to 1.6 per cent of GDP. In southern Europe it rose from 1.3 to 2.9 per cent of GDP. An opposite development took place in North America where the large deficit of 1978 ($18.5 billion) was turned into a small surplus in 1980. Since 1978 exports in volume terms were much more dynamic than imports, while in western Europe imports grew faster than exports in 1979 and virtually at the same rate in 1980. For manufactures alone, it would appear that imports have continued to increase faster than exports (in percentage terms) also in 1980. Rates of growth of both exports and imports decelerated sharply during the year.

Current balance of payments

(*Billions of current US dollars*)

A = Including government unilateral transfers
B = Excluding government unilateral transfers

	1978	*1979*	*1980*
Industrial western Europe			
A	17.23	−16.95	−49.5
B	30.51	− 0.75	..
Southern Europe			
A	−2.18	−5.1	−11.5
B	−2.19	−5.1	..
North America			
A	−18.64	−4.96	3.4
B	−13.72	0.02	..

As market forces look so weak, any recovery will have to be policy induced. The implementation of anti-inflationary strategy is currently based, particularly in the large countries, on monetary policy and, more specifically, on the control of money supply, targets for monetary aggregates normally being set some percentage points below the expected rate of inflation. Operating in a medium-term perspective, variations in the money supply are assumed to exert a definite influence on prices. Falls in employment and output are considered as unfortunate but only temporary hardships which are necessary for restoring a healthy basis for self-sustained growth.

Two major question marks hang over present monetary strategy. The first concerns the very possibility of reducing current inflation rates to desired levels in a period which is not excessively long. A protracted period of cooling-off and repeated postponement of the date when the target is to be reached are likely to increase resistance to continuous restrictive policies and cause policy changes before the monetarist prescription has been fully tested. Second, the present strategy is based on the belief that inflationary expectations must be crushed as a pre-condition of steady expansion and, given appropriate policies, will not revive. This belief—admittedly a crucial point for the success of the present strategy—is based on a judgement of social behaviour and cannot be proved or disproved on the basis of statistical (or even historical) evidence. At present, expansionary policies are ruled out because of the feeling that they would be quickly followed (if not preceded) by a resumption of inflationary spirals. How fundamental changes in this area can be achieved in a not-too-distant future remains rather nebulous.

If an assessment of the outcome of the present monetarist strategy in the medium term can only remain speculative, some short-term effects have already appeared with a certain clarity. Some of them are not easy to reconcile with the proclaimed central targets of monetarist policy while others add a further involuntary element of restraint and thus operate to deepen the present recession. One consequence of the adopted strategy has been a widespread escalation of interest rates which have now reached very high levels, particularly in the United States. The levels prevailing there have exerted a depressive effect not only on the United States' economy but also on western Europe where governments have been forced to adopt policies that are more stringent than might have been justified by their domestic situation alone. This appears to be the case particularly for the Federal Republic of Germany where imbalances both on the current and capital accounts have redirected monetary policy to the defence of the exchange rate. In turn such developments have restricted the scope for manœuvre in other west European countries and especially in those that have close economic relations with the Federal Republic of Germany like Austria, Switzerland, Belgium and the Netherlands. The continuing high levels of real interest rates in many countries may lead to a larger decline in fixed investment than is currently forecast for 1981.

Fiscal policy has been subordinated, in this strategy, to monetary policy and efforts are being made to reduce government borrowing requirements so as to alleviate the upward pressure on interest rates. Fiscal policy is at present being operated in a medium-term perspective in an increasing number of countries, the central aim being a reduction in the public sector's deficit: its stance is therefore already restrictive. The need to alleviate the upward pressure on interest rates adds a further element of restraint.

Because of the dominating role attributed to the quantity of money as a factor affecting prices, a number of countries in 1979 and 1980 made substantial increases in indirect taxes in the belief that their inflationary impact would only be temporary. However it is legitimate to argue that increases in indirect taxation place another obstacle in the path towards lower inflation and that their effect on inflationary spirals is neither transient nor minor.

Another consequence of the predominance given to the control of the money supply as the central instrument for curbing inflation is the relaxation of efforts in the field of incomes policy, particularly for tax-oriented incomes policies owing to their impact on government budgets. It is true that incomes policies during the 1960s and early 1970s are not considered to have been very successful; but national experiences differ in this field as widely as national inflation rates. In some countries (for instance the central European and the Scandinavian countries) some form of incomes policy has been deeply engrained in their wage-setting mechanisms for many years. The operation of incomes policies is obviously more difficult in present conditions of stable or declining real incomes; but their virtual abandonment by many governments may well imply still tighter monetary policy and an exacerbation of social conflict.

The policy orientations discussed in this chapter (and particularly in section 4) by no means imply a simple return to the general demand management of the 1960s and 1970s. The obstacles and the difficulties which that policy encountered have not disappeared and are probably even greater at the present time. The rigidities which beset most industrialized market-economy countries cannot be eliminated by a single stroke of policy. The widespread aspiration towards a new and sustained pattern of economic development requires a policy mix which is more articulated and selective than in the past and even more so than in the present monetary strategy.

1. OUTPUT, DEMAND AND EMPLOYMENT

(i) The present and the 1974-1975 recession

For *western Europe* as a whole, the upswing which started at the beginning of 1978 lasted until the first quarter of 1980. In that period (eight quarters) industrial production rose by 10 per cent, that is, at an annual rate of about 5 per cent.[1] This was a modest increase compared with previous cycles, especially as the 1978-1979 expansion came after the deep 1974-1975 recession and the 1977 mini-recession. In the first quarter of 1980, the pre-recession peak (second quarter of 1974) had been surpassed by only 11 per cent, implying an annual growth rate of about 1.7 per cent.

However, the expansionary phase which started at the beginning of 1978 lasted longer than was generally foreseen. The prevailing view at the beginning of 1979 was that the second round of oil price increases—which began at the very end of 1978—would affect output in the course of that year and a downturn in the second half was confidently predicted. In fact, output and domestic demand continued to increase up to the first quarter of 1980, largely because household consumption was momentarily supported by a sizeable decline in the savings ratio. The downturn for western Europe as a whole and for most individual countries came in the second quarter; and by the last quarter of 1980 the (estimated) level of industrial production was 4½ to 5½ per cent lower than in the first.

Data on production changes for western Europe as a whole by major industrial branches are available only for the first two quarters of 1980 (table 1.1.1) and therefore cannot give a complete picture of the present recession's effects on the various industries. In the second quarter, the production decline relative to the first quarter was deepest for chemicals. This branch typically shows large cyclical variations and rose faster than all the other major branches in 1979. The output decline in the first quarter and the partial recovery in the second for basic metals reflect prolonged work stoppages in the United Kingdom. The situation in this branch deteriorated sharply in the second half of the year; changes in steel production appear to be much more modest in the present than in the 1974-1975 recession reflecting similar movements in stockbuilding and fixed investment.[2] The decline in metal-using industries was relatively moderate in the second quarter and this development conforms quite closely to previous cyclical experience as this branch follows with a time-lag the cyclical variations in the other major industrial branches.

After the 1974-1975 recession, cyclical developments in *North America* took a somewhat different course from those in western Europe. On that side of the Atlantic, the 1976 recovery continued in 1977, 1978 and the first months of 1979. In the first quarter of 1979 the level of industrial production was 34 per cent higher than in the first quarter of 1975 (the trough of the recession) and 16 per cent higher than the pre-recession peak (third quarter of 1974). However, there was no further increase after the first quarter of 1979 because of the severely restrictive policies which were adopted in the United States late in 1978 to "defend the dollar", curb inflation and redress the current balance of payments. The down-

---

[1] Reference is made to industrial production as quarterly GDP data, seasonally adjusted, are not available for the region as a whole. For the sake of comparison, the same variable is also used for North America.

[2] Steel output declined by 31 million tons in western Europe in 1975 while for 1980 the decline is estimated at 11 million tons.

TABLE 1.1.1

Industrial production by major branches in OECD west European countries combined

(*Percentage changes over the preceding period*) [a]

Branch	*1978*	*1979*	*1979*				*1980*		
			Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
Food, beverages and tobacco	3.5	3.3	—	0.5	0.8	2.5	−0.9	−2.6	..
Textiles, clothing and leather	−3.4	4.4	0.6	1.3	0.9	0.2	0.9	−2.8	..
Chemicals	3.5	7.0	1.1	2.8	0.9	0.2	—	−3.8	..
Basic metals	3.2	5.9	2.7	1.2	3.3	0.9	−4.2	1.8	..
Metal products, machinery and equipment	0.9	3.6	−0.8	1.5	1.7	2.7	0.8	−1.7	..
Total manufacturing [b]	1.4	4.2	−0.9	2.7	0.9	0.9	1.7	−2.5	−2.6*
Mining and quarrying	4.9	11.4	5.6	4.1	1.5	−1.5	2.3	−3.0	−1.5
Electricity and gas	4.8	6.3	6.0	−3.0	1.0	0.6	1.6	−2.4	−0.8
Total industrial production	1.4	4.9	0.9	1.7	0.9	0.8	1.7	−2.5	−2.5

Source: OECD, *Main Economic Indicators*, February 1981 and direct communication from OECD.

[a] Quarterly data are seasonally adjusted.

[b] Including branches not shown separately.

turn in industrial production (and GDP) also started in North America in the second quarter of 1980: the fall was steeper than in western Europe but also shorter. It lasted for two quarters with an actual decline of 7 per cent. In the last quarter there was an upturn, which was much stronger than generally expected.[3] As in previous cyclical swings, the output decline was much more severe for materials (11 per cent between the first and the third quarters) than for products (4 per cent). In this latter group, the fall was large for consumer durables and only minor for non-durables. Automotive products fell by nearly 12 per cent between the already depressed first quarter and the second quarter with rising production thereafter; however, year-end production (on the basis of preliminary estimates) was still about 24 per cent below the 1979 average.

How does the present recession compare with the previous one? Annual changes in GDP and industrial production in two periods for western Europe and North America are shown in the following text table:

GDP (A) and industrial production (B)

(*Annual percentage change*)

	1970-1973 [a]	*1974*	*1975*	*1976*	*1976-1979* [a]	*1980*	*1981*	*1982*
Western Europe								
A	4.6	2.1	−2.0	4.5	2.8	1.5	0.2	..
B	4.7	1.7	−6.5	7.0	3.0	0.5	−2.0 [b]	..
North America								
A	5.0	−0.8	−0.8	5.6	3.8	−0.4	1.7	..
B	6.5	−0.1	−8.6	10.3	5.2	−3.5	1.5-2.5*	..

Note: As stated in the text, it was expected, at the beginning of the new round of oil price increases, that 1979 would have been, in cyclical terms, the parallel of 1974 (and 1980 the parallel of 1975) as the beginning of the downturn was expected in the second half of the year (in the previous recession it started in the third quarter of 1974). The trough of the recession was expected for the mid-1980s (the previous recovery started in the last quarter of 1975). In fact, it looks more appropriate to compare 1979 with 1973 (two years of continuous growth) and 1980 with 1974 (the two years when the downturn started).

[a] Annual averages (for the years 1971, 1972 and 1973; and 1977, 1978 and 1979, respectively).

[b] Aggregation of national forecasts.

It is sometimes claimed that the present recession is milder than the 1974-1975 one; and part at least of this alleged difference "for the better" is credited to the present policy strategy. However, the two recessions have to be put into their own proper background. First, the 1973 increase in oil prices was very concentrated in time. Oil prices rose fourfold in a few months. The second round of oil price increases was much more gradual and stretched over one-and-a-half years from the end of 1978 to the first half of 1980. Consequently, the impact on prices and real domestic demand was much less abrupt. Second, the massive oil price increase which occurred at the end of 1973 hit the industrialized market-economy countries in the middle of a traditional cyclical upswing. 1973 was a typical boom year with stretched resources and output bottlenecks: GDP rose by 6 per cent in western Europe and by 5.5 per cent in North America, and industrial production by 7½ and 8½ per cent respectively. The oil shock precipitated and transformed into a severe recession what might otherwise have been a normal cyclical downturn—a deceleration in the growth rate. By contrast, the gentle expansionary phase of 1978-1979 left a considerable amount of slack in western Europe. In North America, 1979 was a flat year for output.

Thus, the statement that the present recession is milder than the previous one has to be duly qualified. It is true that in 1975 there was a decline in west European GDP, while no decline is expected in 1981; but, if the comparison is extended so as to encompass two years in each case (1974 and 1975; 1980 and 1981) the difference between the depth of the two recessions becomes quite small. This is so because, if 1981 is likely to be somewhat better than 1975, 1980 compares unfavourably with 1974. What has been said for GDP also applies to industrial production though, as could be expected, cyclical variations are larger for the latter than for GDP (see text table above). In North America, in contrast, both 1980 and (on the basis of present forecasts) 1981 compare favourably with 1974 and 1975 in terms of GDP. However, when the two recessions are seen against the background of their previous cyclical upswings,[4] the smaller 1980-1981 decline (in comparison with 1974-1975) is seen to be a reflection of the more modest expansion in both regions in 1976-1979. Finally, it is far from likely (as is argued in the fourth section of this chapter) that, on present policies, there will be—at least in western Europe—a rebound in production in 1982 of the same dimension as in 1976. Thus the present recession might be "less deep" but more prolonged than in 1974-1975, reflecting a narrower cyclical variability around a very low growth trend, rather than a greater resilience to shocks.

A comparison of the cyclical swings in western Europe and North America in the 1970s reveals both similarities and differences. Broadly speaking, cyclical developments were not very different in the two regions. However, the economies of the United States and Canada displayed a greater cyclical variability. Secondly, a recovery of production has already started in North America (in the last quarter of 1980) while this is not the case for western

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[3] In terms of GDP, the recession lasted for only one quarter: between the second and third quarters there was an increase of 2.4 per cent (annual rate).

[4] The expansionary periods chosen for the comparison are 1970-1973 and 1976-1979.

Europe. Thirdly, the North American economies displayed considerably greater dynamism in the 1976-1981 cycle than the west European ones. Looking beyond cyclical fluctuations, it appears that the margin which western Europe had over North America in terms of growth ratse, in the 1950s and 1960s, disappeared in the 1970s.

The less pronounced variability displayed by the economies of western Europe and, to a lesser extent, also by North America in the present cycle compared with the previous one, is essentially due to stockbuilding and fixed investment. Annual variations in gross domestic fixed capital formation are shown in the following text table:

Fixed investment

(*Annual percentage change*)

	1970-1973 [a]	*1974*	*1975*	*1976*	*1976-1979* [a]	*1980*	*1981*	*1982*
Western Europe	4.6	−2.4	−4.0	2.7	2.5	2.7	−1.0 [b]	. .
North America	6.9	−4.7	−9.7	6.0	5.6	−6.5	0.4 *	. .

[a] Annual averages as in previous text table.

[b] Aggregation of national forecasts.

Fixed investment, which had increased by about 14 per cent in western Europe between 1970 and 1973, rose by only 7.5 per cent in the 1976-1979 period (less than private consumption). There was a further increase in 1980 and only a marginal decline is projected for 1981. However, when the two full cycles are compared (1970 to 1975 and 1976 to 1981) the growth rate of fixed investment is very much the same—about 10 per cent in both quinquennia: the smaller decline in 1980-1981 compared with 1974-1975 is offset by a smaller increase in the 1976-1979 upswing than in 1970-1973. In North America, the cyclical variability of fixed investment was larger than in western Europe in both cycles. As in western Europe, the fall was less in the present than in the previous recession but the underlying trend seems to be more vigorous. Fixed investment rose by about 7.5 per cent in the first quinquennium (1970 to 1975) and by about 10 per cent in the second (1976 to 1981).

Household expenditure in real terms behaved in much the same way in both recessions. In North America, private consumption rose, on average, by about 0.5 per cent per year in 1974-1975 and a similar rate is estimated for 1980-1981. If there is a difference in terms of growth rate, this seems to be in favour of the previous recession. For western Europe, the growth rate of private consumption is estimated at about 1½ per cent per year both in 1974-1975 and in 1980-1981.[5]

(ii) Output and demand patterns

OUTPUT

Among the west European countries GDP rose fastest in Finland for the second consecutive year, with an increase of 5.5 per cent in 1980 compared with more than 7 per cent in 1979. Belgium, the Federal Republic of Germany, Ireland, the Netherlands and probably France grew less than 2 per cent. The marked fall in GDP growth between 1979 and 1980 was fairly general, the exceptions being Switzerland and Norway (in the latter only because of a sharp increase (29 per cent) in oil production). In Switzerland exports and some revival in residential construction were the main supporting factors. In contrast, output growth was negative in Denmark and the United Kingdom as a consequence of stringent policies designed to curb inflation in the United Kingdom, and both inflation and a foreign deficit in Denmark. Changes in industrial production were larger than those in GDP, but the country pattern is very much the same (table 1.1.2).

As shown in the following text table, the decline of industrial production between the first and the last quarters of 1980 for most countries fell in the range of 4 to 6 per cent. The only exceptions are Finland (where the decline started in the last quarter) and the United Kingdom where the fall was much larger than elsewhere. In Italy and the Netherlands there was some rebound in production in the last quarter relative to the third when the fall in output had been particularly steep. In the United States, the pre-recession level (third

Industrial production in 1980

(*Index numbers, first quarter 1980 = 100*)[a]

Country	*Q2*	*Q3*	*Q4*
Austria	99.8	98.7	99.0
Belgium	98.3	95.0	95.8 [b]
Finland	103.9	107.3	104.3 [b]
France	97.1	97.8	. .
Germany, Federal Republic of . . .	98.4	95.1	94.6
Ireland	98.3	93.4	. .
Italy	97.3	89.9	94.4
Netherlands	97.4	93.6	96.0
Norway	99.7	98.4	96.1
Sweden	92.8	98.8	95.8
Switzerland	97.4	97.4	. .
United Kingdom	97.0	94.1	92.4
Canada	97.4	97.2	99.8 [b]
United States	94.9	93.2	97.8

Source: National statistics and OECD, *Main Economic Indicators*, Paris.

[a] Seasonally adjusted.

[b] October-November.

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[5] Real disposable income grew less in the present than in the past recession in both regions but this more modest increase was offset by stable or declining savings ratios which had increased in 1974-1975.

TABLE 1.1.2

GDP and industrial production

(Annual percentage change)

Country	GDP					Industrial production [b]			
	1970-1973	1974-1978	1979	1980	1981 [a]	1970-1973	1974-1978	1979	1980
Austria	6.0	2.7	5.1	3.6	−0.5	6.9	2.3	6.3	4.6
Belgium	5.4	2.4	2.4	1.4	1.1	4.6	1.0	4.7	1.0*
Denmark	3.9	1.9	3.5	−1.0	−0.9	..	..	..	..
Finland	6.1	1.4	7.2	5.5	3.0	8.2	1.6	10.5	6.0
France	5.6	2.8	3.2	2.2	1.6	6.0	1.6	4.7	—
Germany, Federal Republic of	4.4	2.1	4.5	1.8	−0.5	4.7	1.1	5.1	0.5*
Ireland	4.0	4.0	1.9	1.8	..	5.6	4.3	6.7	1.5*
Italy	4.2	2.2	5.0	3.5	—	5.1	2.1	6.6	5.5
Netherlands	5.0	2.5	2.2	1.0	—	6.7	1.8	2.8	—
Norway	4.0	4.6	3.2	4.1	1.0	5.3	5.1	6.9	6.5
Sweden	2.5	1.4	3.7	2.2	0.7	4.4	−0.9	6.6	0.5
Switzerland	4.2	−0.9	2.2	3.0	0.3	4.5	−1.0	2.0	5.5
United Kingdom	3.7	1.3	1.3	−1.4	−2.0	2.7	0.7	3.7	−7.0
Canada	5.8	3.3	2.7	−1.0	1.0	6.1	1.9	4.7	−2.0*
United States	3.5	2.6	2.8	−0.3	1.7	4.1	2.6	4.4	−3.5

Sources: For GDP: appendix table; for industrial production: national statistics.

[a] Projections.

[b] Data for Austria, the Netherlands, Norway, Sweden, the United Kingdom, Canada and the United States are adjusted for irregularity in the number of working days.

quarter of 1979) had been virtually regained by the last quarter of 1980 while in Canada the difference was no larger than 2 per cent.

The development of the major industrial branches in 1979 and 1980 in the individual west European countries is shown in table 1.1.3.[6] Between the third quarter of 1979 and the third of 1980 (data for the last quarter of 1980 are not yet available), the food industry displayed less cyclical variability than total manufacturing in all countries, and output continued to increase between the third quarters of 1979 and 1980 though at a lower rate. However, there was a sharp acceleration in Switzerland, while the United Kingdom was the only country to witness a decline. Cyclical variability was, by contrast, very large for another typical consumer industry, namely textiles. The figures in table 1.1.3 may convey a somewhat exaggerated impression in this respect as cyclical fluctuations in textiles, if they are not usually very large, typically anticipate the cycle for manufacturing as a whole; but textile output rose relatively fast between the end of 1978 and the end of 1979—as fast or faster than total manufacturing output—one possible reason being anticipatory buying (associated with a decline in the savings ratio, which was a prevailing feature in western Europe towards the end of 1979). Developments in the transport equipment branch differed widely among countries largely reflecting differences in output structure. In the United Kingdom, output had already declined in the second half of 1979 compared with the corresponding period of 1978, and the decline became much steeper in 1980. On the whole, output developments for this branch in 1980 were relatively less favourable in those countries where it is dominated by the motor car industry.[7]

Cyclical fluctuations appear so far to have been relatively narrow for engineering. Between the second half of 1978 and the second half of 1979, the engineering industry (that is, electrical and non-electrical engineering taken together) had not expanded faster than total manufacturing in most countries. To a large extent this rather unusual behaviour, compared with previous cyclical upswings, reflects the sluggishness of investment demand in 1978-1979. On the basis of past cyclical experience, it is likely that the engineering industry will bear, with a certain delay, the brunt of the present recession. In 1980, output generally continued to rise in these two branches (taken together) although at a lower rate. In Belgium and the United Kingdom, however, there was a decline. The large cyclical variability for basic metals and chemicals for western Europe as a whole occurred in virtually every country individually. In most of them production fell—sometimes by a large amount—between the third quarters of 1979 and 1980.

DEMAND

(*a*) *External demand* provided very little contribution to output expansion in the industrialized west European countries as a whole in 1980. Exports of goods and services at constant prices rose virtually *pari passu* at about 3.3 per cent, much less than in 1979. Changes

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[6] The table compares the last and the third quarters of 1979 and 1980 with the corresponding quarters of the previous years. Relative branch growth rates and structural changes in the west European manufacturing industry since 1970 are examined in chapter 4 of this *Survey*.

[7] Comparisons for Italy are distorted by the prolonged strikes in 1979, while 1980 figures for France (quarterly index numbers) are available only for the first two quarters.

TABLE 1.1.3

Manufacturing industry: output of selected industrial branches

(Percentage change over corresponding period of previous year)

Country	Total manufacturing [a]		Iron and steel basic industries		Chemical industry		Mechanical engineering		Electrical engineering		Transport equipment		Textiles		Food, beverages and tobacco	
	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4
Austria																
1979	8.9	8.1	12.5	12.7	10.4	3.8	9.3	3.9	7.8	10.4	12.6	21.4	3.5	5.9	5.5	8.0
1980	0.6		0.2		1.5		−0.3		1.2		8.8		4.5		2.0	
Belgium																
1979	6.6	3.3	10.1	−5.8	9.6	1.5	10.9	13.3	−1.3	−0.2	7.4	13.3	10.7	9.1	5.0	1.7
1980	−3.4		−19.9		−12.7		−4.8		−5.2		−8.5		−3.0		0.9	
Finland																
1979	14.3	9.1	11.3	6.5	14.2	6.7	15.3	6.1	14.6	12.7	22.5	17.4	13.3	11.3	6.6	3.6
1980	8.4		5.6		10.9		12.5		18.0		3.5		4.1		4.8	
France																
1979	7.3	4.3	10.1	13.8	13.1	6.5	7.6	7.8	7.6	2.5	7.7	3.1	2.5	—	3.5	2.3
1980	−3.6		..		..		..		..		..		..		..	
Germany, Fed. Rep. of																
1979	5.4	5.5	10.9	12.8	4.9	3.0	2.8	8.2	0.5	4.5	2.8	3.4	6.1	4.6	3.3	3.7
1980	−2.8		−8.3		−10.0		4.9		−0.4		−6.1		−6.1		2.2	
Italy																
1979	5.4	10.3	4.4	7.9	4.9	10.2	1.6	14.2	1.7	10.5	0.9	12.7	9.5	9.1	4.5	10.9
1980	3.8		2.9		0.1		12.3		8.6		9.2		0.8		4.5	
Netherlands [b]																
1979	4.5	0.9	c	c	9.3	6.9	c	c	4.8	−0.8	c	c	−4.7	9.0	1.8	—
1980	−3.4		c		−13.5		c		—		c		..		0.9	
Norway																
1979	5.0	1.0	21.8	2.7	7.4	9.4	16.3	12.4	−3.7	−4.1	−5.7	−11.3	12.3	4.3	5.9	−0.8
1980	−1.1		−7.8		0.6		2.1		2.6		−0.5		−0.4		0.9	
Sweden																
1979	10.1	6.3	10.4	1.7	7.3	8.8	19.8	11.4	12.7	5.1	9.7	7.6	7.6	5.3	3.7	2.4
1980	0.6		−9.4		−9.2		0.8		9.2		0.6		−5.6		3.6	

Switzerland																
1979	3.6	2.5	..	..	11.4	8.3	2.2 [d]	−4.7 [d]	..	..	..	..	4.3	8.3	0.7	4.9
1980	3.5		..		−5.3		12.3 [d]		..		..		−4.1		8.0	
United Kingdom [b]																
1979	−1.6	1.1	7.1	4.9	1.5	0.2	−6.6	2.9	0.8	4.7	−12.1	2.1	−3.6	−6.2	2.3	2.9
1980	−9.9		−31.2		−14.4		−5.1		3.8		−3.3		−21.3		−3.9	

Source: National statistics.

Note: Data are not adjusted for seasonal variations, but index numbers for Austria, the Federal Republic of Germany, Norway and Sweden have been adjusted for changes in the number of working days.

[a] Austria: mining and manufacturing; Belgium: manufacturing, electricity and water; France: industrial production excluding construction (quarterly indices).

[b] Based on quarterly index numbers, seasonally adjusted.

[c] Series in course of revision.

[d] Machinery and apparatus, transport equipment and musical instruments.

in real trade balances with the various outside markets virtually cancelled one another out and the general weakening of domestic demand in western Europe led to an even greater slowing down of intra-trade.[8] Owing to the limited extent to which foreign demand can be replaced by domestic demand in individual countries in the short run, a deceleration of intra-trade is bound to have a deflationary effect on the economy of the region, as was in fact the case in 1980. Furthermore, as far as can be judged from still fragmentary data, imports of manufactured goods into western Europe grew faster than exports, and faster than total imports, which decelerated sharply partly because of lower stockbuilding (and actual de-stocking in some countries). Foreign demand in 1980 had a clear expansionary influence only in a few small countries (such as Finland, Ireland and Switzerland) where exports continued to increase at a high or accelerated rate. For 1981 the aggregation of national projections yields for western Europe as a whole an export growth of no more than 1 per cent and virtual stagnation for imports.

(*b*) In 1980, changes in *stockbuilding* were large enough to affect changes in total domestic demand only in a few countries, namely Italy and Sweden in a positive direction, and Ireland and the United Kingdom in a negative one. In the United Kingdom final domestic demand declined by less than half a percentage point, while total domestic demand (that is domestic demand including changes in stocks) declined by about 2½ per cent (table 1.1.4). In Italy and Sweden, stockbuilding added about 1½ percentage points to the growth of domestic demand. Yet the time profile of the current stock cycle is very similar for these two groups of countries as well as for most other countries of the area. There was a fairly general tendency in western Europe for stockbuilding to increase faster than final domestic demand during part of 1978, all of 1979 and part of 1980 (a few months for most countries). Subsequently, the tendency was reversed and there are no indications of a new turning point in the next few months. The inter-country differences which appear when comparing 1979 and 1980 on the basis of annual averages, reflect the relative strengths of the upward and downward phases of the cycle, as well as the moment at which the downturn began in 1980. In Sweden, for instance, restocking started in mid-1978 and continued until mid-1980 when there was a reversal.

1981 is expected to be another year of only small stock increase in most countries (a continuation of the tendency which began during 1980) and the effect of stockbuilding on changes in domestic demand should be small (half a percentage point or less). On the whole, changes in stockbuilding appear to be much more moderate in the present cycle than in that of 1974-1976. In the 1975 recession de-stocking amplified downward changes in final domestic demand by 2 to 3 percentage points (and by more in some small countries such as Ireland and Switzerland), while a sharp reversal occurred in 1976.

(*c*) In western Europe as a whole and in most individual countries, all the major demand components weakened in 1980 compared with 1979, but the deceleration was smaller for *fixed investment* than for private consumption. An opposite development is expected for 1981 when, on the basis of national forecasts, fixed investment should decline by 1 per cent while private consumption should still increase.

There were considerable inter-country differences in investment in 1980. In five countries (Austria, Finland, Italy, Norway and Switzerland) there was an acceleration and in Belgium there was a shift (of very modest dimension) from a decline to an increase (which was due to the dwelling sector). In Switzerland and Norway the acceleration of fixed investment was associated with a similar increase in GDP while this was not the case in Austria, Finland and Italy where the investment performance of 1980 reflects the strength of the 1979 expansionary upswing (taking account of the traditional cyclical time-lags). In Finland, furthermore, the deceleration in the major demand components (and in output) started later

TABLE 1.1.4

Domestic demand, including and excluding stockbuilding

(*Annual percentage change, in volume*)

Country	*Including stockbuilding*					*Excluding stockbuilding*				
	1977	*1978*	*1979*	*1980*	*1981* [a]	*1977*	*1978*	*1979*	*1980*	*1981* [a]
Austria	5.8	−2.1	5.8	2.9	−2.5	5.8	−2.2	4.3	2.4	−0.8
Belgium	1.6	3.0	3.5	1.8	1.3	1.7	3.1	3.4	..	..
Denmark	0.2	0.5	2.5	−4.5	−2.2	0.3	0.8	2.3	−4.0	−2.2
Finland	−3.3	−0.3	10.0	6.0	3.0	−1.5	−0.2	4.5	5.3	3.6
France	1.5	3.0	3.9	2.0	1.0	1.5	3.6	2.9	2.2	1.5
Germany, Federal Republic of	2.9	3.9	6.1	1.8	−1.0	3.0	4.4	4.4	2.5	—
Ireland	6.2	8.2	7.0	−5.7	..	4.2	10.0	6.6	−3.8	..
Italy	0.5	1.9	5.8	5.8	..	1.8	2.2	4.6	4.5	..
Netherlands	5.0	4.2	1.3	0.2	..	5.7	3.8	1.9	0.5	..
Norway	3.5	−6.9	2.8	3.2	2.7	5.5	−5.2	−1.8	3.0	2.9
Sweden	−3.9	−2.7	5.7	2.9	−0.4	−0.6	−1.4	3.7	1.2	0.4
Switzerland	2.2	3.3	3.9	3.8	—	2.4	3.0	2.1	3.5	1.4
United Kingdom	−0.5	4.2	3.6	−2.5	−1.0	−1.1	4.7	3.0	0.4	−1.0

Sources: As for Appendix table. [a] Projections.

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[8] Trade developments are examined in some detail in section 3 of this chapter.

than elsewhere. The growth of enterprise investment accelerated also in France, while public investment provided a contribution to total fixed capital formation only in Sweden and, to a lesser extent, in Finland. In the other countries, public investment either declined or rose only fractionally, reflecting the generally restrictive policy stance (table 1.1.5). Investment in equipment in 1980 continued to display a relatively better performance than investment in construction, probably reflecting the predominance of the rationalization motive in current investment activity.

(*d*) For western Europe as a whole, *household consumption* in real terms rose by about 1.5 per cent in 1980 (compared with 3.6 per cent in 1979) and is expected to rise by less than 1 per cent in 1981. It rose most in Italy (4 per cent) where the growth of domestic demand spilled over heavily into imports. In Finland there was an increase of 3 per cent, but a decline in Denmark and Ireland. Private consumption increased between 0.3 per cent (Sweden) and 2.5 per cent (Switzerland).

The main factors affecting private consumption (primary incomes, government net transfers, real disposable income and household savings) are known for too few countries in 1980 to allow firm generalizations. However, some indications can be derived from the data in table 1.1.6. Because of restrictive policies, the prevailing tend-

TABLE 1.1.5

Public and private enterprise investment

(*Annual percentage change, in volume*)

Country	Year	Public investment[a]	Private enterprise investment[b]	
			Total	Manufacturing
Denmark	1978	..	1.1	..
	1979	..	0.8	..
	1980	..	−18.4	..
	1981	..	−5.5	..
Finland	1978	0.8	−18.0	−19.2
	1979	0.8	9.8	17.9
	1980	4.0	17.3	40.0
	1981	2.5	11.4	15.0
France[c, d]	1978	−2.0	2.0	−1.8
	1979	1.2	2.4	−0.1
	1980	1.0	4.0	..
	1981	2.0	1.0	..
Germany, Federal Republic of	1978	6.0	6.6	−0.9
	1979	6.4	9.6	11.0
	1980	2.4	3.6	9.0
	1981	−7.5	−2.4	−1.0
Italy[d, e]	1978	−3.6	−0.1	−3.8
	1979	2.9	6.1	10.5
	1980	..	..	..
	1981	..	..	..
Netherlands[e]	1978	−2.5	6.2	4.0
	1979	−5.7	3.8	1.2
	1980	1.0	−2.0	..
	1981	−2.0	−4.0	..
Norway[f]	1978	−4.6	−25.5	−14.6
	1979	−7.2	−14.2	−23.3
	1980[d, g]	−6.7	7.7	20.0
	1981[d, g]	−3.2	5.5	2.0
Sweden[e]	1978	—	22.9	−19.4
	1979	0.7	10.7	7.0
	1980	8.2	0.7	16.4
	1981	−1.1	0.8	2.8
United Kingdom[h]	1978	−10.6	−8.4	13.4
	1979	−3.4	3.3	5.3
	1980	−1.6	−2.3	−8.8
	1981	−6.6	−7.2	−14.3

Sources: As for appendix table; for the United Kingdom: NIESR, *National Institute Economic Review*, London, November 1980.

[a] Public administration and public enterprises, unless otherwise stated.

[b] Mainly private enterprises, excluding dwellings.

[c] "Enterprise investment in manufacturing" refers to "industry".

[d] "Public investment" refers to "public administration" only. Public enterprises are included with private enterprises.

[e] "Enterprise investment in manufacturing" refers to "industry and construction".

[f] "Enterprise investment" includes ships and oil exploration (the percentage changes excluding ships and oil exploration are: 1978 — 1.3; 1979 — 1.9; 1980 — 2.8; 1981 — 4.1).

[g] Enterprise investment in manufacturing includes mining.

[h] Iron and steel is included with public investment.

TABLE 1.1.6

Household income and savings

A = Primary income: annual percentage increase
B = Disposable income: annual percentage increase
C = Real disposable income: annual percentage increase
D = Savings as percentage of disposable income

Country	1978	1979	1980
Finland			
A	6.0	13.5	17.6
B	12.1	14.1	15.0
C	4.1	5.7	3.1
D	*7.3*	*7.9*	*6.7*
France			
A[a]	14.3	12.4	15.1
B	14.3	12.6	14.1
C	5.1	1.9	0.5
D	*17.8*	*16.7*	*15.6*
Germany, Federal Republic of			
A	6.5	8.1	7.7[a]
B	6.6	7.9	7.4
C	3.7	3.8	1.8
D	*12.5*	*13.1*	*13.3*
Italy			
A[a]	17.0	19.5	23.0
B	19.0	20.1	22.0
C	5.4	4.4	1.0
D	*27.2*	*26.9*	*23.8*
Netherlands			
A	7.6	5.9	5.5[a]
B	8.0	5.8	..
C	3.5	1.2	..
D	*12.3*	*11.4*	..
Sweden			
A[a]	11.3	9.7	11.8
B	11.2	10.0	14.7
C	—	2.6	2.3
D[b]	*4.1*	*3.7*	*5.7*
United Kingdom			
A	14.9	16.3	16.7
B	17.6	18.6	17.3
C	10.5	6.1	1.3
D	*12.4*	*13.8*	*14.9*

Sources: As for table 1.1.5.

[a] Compensation of employees.

[b] Net savings. Gross savings for 1978 and 1979 as percentage of disposable income are: 8.9 and 9.3 per cent. Gross savings figure is not available for 1980.

ency was for disposable income to increase less than primary income. This was the case in Finland, France, the Federal Republic of Germany and Italy, though not in Sweden and the United Kingdom. Fiscal policy remained rather liberal in Sweden in 1980 (see below in this section) while in the United Kingdom action to restrain private consumption took the form of an increase in indirect taxation rather than a reduction in net transfers; the increase of indirect taxation is one of the factors behind the sharp deceleration in real disposable income in this country between 1979 and 1980 (the increases were 6.1 per cent and 1.3 per cent respectively).

Changes in the savings ratio of households are affected by a number of factors and the final outcome is extremely difficult to predict.[9] The provisional national accounts for 1980 indicate, on the whole, virtual stability or a small decline in the savings ratio in western Europe. For the countries of the European Economic Community a decline from 17.1 in 1979 to 16.6 per cent in 1980 has been estimated.[10] Table 1.1.6 shows a decline for Austria, France and Italy and virtually no change for the Federal Republic of Germany. For Sweden and the United Kingdom an increase is reported. The few quarterly data that are available suggest that the household savings ratio was declining in most countries in the second half of 1979 and the early part of 1980; subsequently, this tendency appears to have been reversed.[11] In the United Kingdom, for instance, the savings ratio of households was very low in the first quarter, rose steeply in the second quarter and more moderately in the third quarter.[12] A tendency for savings ratios to increase during 1980 from the low levels prevailing in the first quarter is also reported for France. It is likely that fears of a further increase in unemployment, unfavourable prospects for earnings, and some expectation of lower inflation are currently leading to an increase in household savings.

(iii) Country cyclical positions

It was argued above that, although growth rates of output differed considerably among the west European countries in 1980, a fairly general tendency is apparent in the sense of a marked slowing down between 1979 and 1981. In the latter year most national growth rates of GDP are expected to remain within the range of plus and minus 1 per cent. These very modest rates essentially reflect the prevailing view among policy makers that fighting inflation should remain the central policy task for 1981 and that the control of the money supply should be the main instrument of policy.[13] Furthermore, fiscal policy is set to remain restrictive in most countries and will not offset, *inter alia*, the deflationary effects stemming from the unspent receipts of the oil exporting countries (as it did not offset the worsened terms of trade in 1979 and 1980). The countries with high inflation rates are endeavouring to reduce them, while those with relatively low rates refrain from reflation because of the feeling that this could rapidly destroy their relatively comfortable position in this respect. There is no clear evidence (in contrast with the prospects for output) that the much sought after reduction in inflation rates is underway, except perhaps in a few countries.[14] There is, on the other hand, a fairly widespread feeling among policy makers that expansionary policies might quickly be followed (if not preceded) by a reactivation of the various spirals (prices-wages; wages-prices; wages-wages; devaluation-domestic price rises, etc.) which feed the inflationary process.[15]

After the recession which followed the first oil shock, the United States, Japan and the Federal Republic of Germany were in a position to perform—in varying degrees—the role of "locomotive" as they emerged from recession with their balance of payments stronger than before and with relatively low inflation rates. Though complete success cannot be claimed for that strategy, high output growth rates in the United States and some expansion of domestic demand in the Federal Republic of Germany, as well as the Deutschmark revaluation, provided some stimulus to other countries' exports. In present conditions there is hardly any scope for a similar approach. The very small inter-country differences in the output growth rates expected for 1981 is an indication that no country feels that it can "run much faster" than the others. This constraint applies with particular force to the small countries, but it holds also for the larger ones because of the adverse effects on the foreign account of "going for growth" alone. In contrast with the situation in 1975 no country enjoys at present both a low inflation rate *and* a comfortable balance of payments position.

The situation of the large countries is of particular relevance in this context as their policy orientations are obviously bound to affect economic developments in the whole area. The United States' current balance of payments closed in surplus in 1980 and a larger surplus is forecast for 1981, but the country still has two-digit inflation. The Federal Republic of Germany has a relatively low inflation rate but a large deficit in the current account. In 1980, the United Kingdom had a large surplus on current account but inflation still dominates the stance of policy. The prominence given to the fight against inflation is obviously the central reason why the United Kingdom and the United States are following a policy of severe restraint (mainly through the control of money supply). Italy shared with Ireland and the United Kingdom the highest inflation rates among the industrialized west European countries in 1980 and has, furthermore, a large current account deficit. Both inflation and the foreign account have been less threatening in France, but inflation is in two digits and, in contrast with the United Kingdom, there has been no slowing down in recent months. An expansionary policy is ruled out in order to prevent any further worsening in both areas.

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[9] See section 4 of this chapter.

[10] Commission of the European Communities, *Annual Economic Report 1980-1981*, Brussels, November 1980.

[11] The household savings ratio would thus have followed an opposite movement to the changes in stockbuilding which rose up to the first half of 1979 and then slowed down or started to decline.

[12] If the household savings ratio in the last quarter of 1979 is made equal to 100 (seasonally corrected series), the index numbers for the first, second and third quarters of 1980 are: 77.4, 96.8 and 107.7. Central Statistical Office, *Economic Trends*, London, January 1981.

[13] The most important single factor behind the resurgence of the inflationary forces in 1979 and 1980 was the new round of oil price increases; however—as shown in last year's *Survey*—an acceleration of inflation started in most countries before the effects of the new rises in oil prices were felt in the domestic economy.

[14] See section 2 of this chapter.

[15] An assessment of the present policy orientation is presented in section 4.

TABLE 1.1.7

Current balance of payments and general government net financial savings

(*Per cent of GDP*) [a]

	Current balance of payments [b]			*General government net financial savings*		
	1978	*1979*	*1980*	*1978*	*1978*	*1980*
Austria	−2.5	−2.6	−4.7	−3.1	−3.4	−2.6
Belgium [c]	−0.9	−3.0	−5.1	6.0	−7.2	−8.2
Denmark	−2.6	−4.5	−3.7	−2.2	−3.3	−3.5
Finland	1.9	−0.6	−3.3	1.7	1.0	2.0
France	0.8	0.3	−1.2	−2.3	−0.8	−0.9
Germany, Fed. Rep. of	1.4	−0.8	−1.9	−2.8	−3.0	−3.4
Ireland	−2.6	−10.1	−7.0	−14.3	−12.8	−12.8
Italy	2.4	1.6	−2.4	−10.6	−9.4	−8.5
Netherlands	−1.1	−1.6	−1.5	4.1 [d]	−5.1 [d]	−5.6 [d]
Norway	−5.1	−2.5	1.6	0.2	−0.8 [e]	4.2 [e]
Sweden	−0.3	−2.6	−4.0	−0.1	—	−2.7
Switzerland	5.2	2.6	−0.6	..	..	..
United Kingdom	0.4	−0.9	1.0	−4.2	−3.3	−3.3
Western Europe	0.8	−0.6	−1.6	..	..	..
Canada	−2.1	−1.9	−0.7	−3.8	−1.7	−0.9
United States	−0.7	—	0.2	0.5	0.6	−0.4
North America	−0.8	−0.2	0.1	0.1	0.4	−0.4

Sources: National statistics and secretariat estimates; IMF, *International Financial Statistics*, Washington, February 1981; national accounts of OECD countries 1961-1978.

[a] GNP for the United States.

[b] Including government unilateral transfers.

[c] Balance of payments including Luxembourg.

[d] Financing deficit of the government sectors according to the Central Plan concept.

[e] For 1979 and 1980, the percentages excluding oil taxes are −5.2 and −5.0 respectively.

Thus, the countries which in 1980 had already adopted severely restrictive policies are committed to continue with them in 1981, while those which had a more flexible approach now have little choice but to follow the prevailing pattern. Among the west European countries, the Federal Republic of Germany, France and the United Kingdom belong to the first group.

In the *Federal Republic of Germany* the current account deficit rose from 0.8 per cent of GDP in 1979 to 1.9 per cent in 1980, and the balance-of-payments situation is becoming of central importance in policy making (table 1.1.7). The general government financial deficit increased only marginally in 1980 and therefore most of the worsening of the foreign account was reflected in the private sector of the economy (to a large extent, probably, in the enterprise sector). Official forecasts for 1981 (prepared in January) foresee either stagnation or a decline in GDP for the year as a whole. No revival is expected to begin before the second half. The monetary authorities feel that there is little scope for manœuvre, particularly for a reduction in interest rates, as the current account deficit is large and capital outflow—mainly a consequence of widening interest rate differentials in favour of the United States—is exerting a downward pressure on the Deutschmark. In February of this year, monetary policy was further tightened to defend the exchange rate and prevent imported inflation.

For *France*, official estimates released at the beginning of October put GDP growth in 1980 at 2.2 per cent, and project a rate of 1.6 per cent for 1981. Owing to unfavourable developments in the last quarter and the depressed outlook for the industrialized market economies, it is doubtful if this target can be reached.[16] Industrial production did not increase at all in 1980. It declined between the beginning and end of 1980; and in the first half of 1981 is expected to remain flat. The current balance of payments deteriorated by an estimated 1.5 per cent of GDP between 1979 and 1980, while the net financial deficit of the general government remained virtually unchanged. Because of a strict fiscal policy, households' disposable income is estimated to have risen somewhat less than their primary income and private consumption was able to rise by an estimated 2 per cent only through a reduction in the household savings ratio. Fixed investment rose somewhat more than private consumption in 1980 but the opposite pattern is forecast for 1981 (as in many other countries) reflecting the time lag with which enterprise investment follows other components of final demand.

In the *United Kingdom*, a tight monetary policy, a high exchange rate and an unfavourable business climate, led to a large fall in fixed investment. Private consumption rose 0.6 per cent but output growth was negatively affected by considerable de-stocking. A further, though smaller decline for output and the major categories of domestic demand is expected in 1981, when exports are also likely to decline (in contrast with 1980).[17]

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[16] The commission of the European Economic Communities (*The European Economy*, November 1980) has estimated for 1980 a GDP growth rate of 1.8 per cent and forecast for 1981 a rate of 1.2 per cent.

In *Italy*, the lira devaluation of late 1976 restored the competitive position of exports and fiscal and monetary policies became gradually more permissive in 1978 and 1979. GDP rose fast in 1979 and in the first quarter of 1980. Partly as a consequence of a buoyant domestic demand and partly because the effects of the 1976 devaluation were in the mean time eroded by inflation, the deterioration of the current account between 1979 and 1980, amounting to about 4 per cent of GDP, was much greater than in either France or the Federal Republic of Germany. The 1980 deficit is also considerably larger than in either France or the Federal Republic of Germany. As in these two countries, the financial deficit of the general government did not increase in 1980 (in all likelihood there was some decline), and the foreign account deterioration was largely reflected in a large fall in the household savings ratio. Inflation is still proceeding at an annual rate of about 20 per cent per year and growth prospects are increasingly dependent on developments abroad. A new credit squeeze was introduced in February 1981 and it is now openly recognized that in present circumstances it is virtually impossible for the Italian economy to expand at a higher rate than its major trading partners.

Three out of the nine small industrialized west European countries (Denmark, Ireland and Norway) recorded an improvement in their current account balances, expressed as a ratio of GDP, between 1979 and 1980. In the Netherlands, the foreign deficit (expressed as a ratio of GDP) remained virtually unchanged, while in the other five countries (Austria, Belgium, Finland, Sweden and Switzerland) there was a deterioration. However, the foreign constraint is more widespread and more acute in these nine countries than this classification suggests. First, with the exception of Switzerland, the small countries in 1980 had larger foreign deficits (in terms of GDP) than the large countries. Second, the improvements recorded in 1980 by Denmark and Ireland are simply the consequence of very weak domestic demand and of the policies designed to achieve such an effect. In Norway, the surplus is entirely due to North Sea oil.

In *Denmark* and *Ireland* domestic demand fell by 4.5 and 5.7 per cent respectively. At the end of 1979 the Danish authorities elaborated a medium-term plan designed to reduce costs and prices relative to the country's main trading partners and to shift resources towards exports. Other measures were adopted in 1980 to restrict domestic demand. In particular, energy prices were excluded from the consumer price index and at mid-year VAT rates were increased. All the major components of domestic demand (excluding public consumption) declined in 1980 and the fall was particularly large for investment which declined by 15 per cent (investment in dwellings declined by more than 20 per cent). A further decline in output (of the same order as in 1980, that is, 1 per cent) is expected for 1981. In contrast to Denmark, Ireland had enjoyed a remarkable phase of expansion in 1977 and 1978 under the combined impact of rapidly increasing exports and liberal fiscal and domestic policies. The sharp contrast between GDP growth rates in 1978 and 1979 (6.3 and 1.9 per cent respectively) is partly due to the vicissitudes of agricultural production, but non-agricultural GDP growth also slowed down, from 7.3 to 4 per cent. However, fixed investment continued to expand at the high rate of the previous year (about 15 per cent) and imports rose sharply, partly reflecting a deterioration in the terms of trade. Developments in the foreign account and accelerating inflation led to restrictive policies. In 1980, there was a decline both of fixed investment and private consumption; and the volume of imports of goods and services fell by 7 per cent. For 1981, output growth should accelerate slightly but a further deterioration is expected in the current account.

As noted above, the current account deficit widened in 1980 in Austria, Belgium, Norway (excluding oil), Sweden and Switzerland. *Austria* and (especially) *Finland* achieved high growth rates of output in 1979 and 1980. Vigorous export growth (in 1979 in Austria, and in 1979 and 1980 in Finland) played a key role in fostering the growth of output and incomes. However, accelerating inflation in Finland and a widening current account deficit in both countries led to a change in policies. In Austria, the current balance of payments deficit was equal to 4½ per cent of GDP in 1980 compared with 2.8 per cent in 1979. The general government financial deficit narrowed and fiscal policy gradually became more restrictive. The present policy orientation should continue in 1981 within the framework of a medium-term plan designed to reduce the Federal deficit. Monetary policy also became gradually more restrictive in the course of 1980. Interest rates were raised to discourage capital outflow and stricter ceilings were imposed (in April 1980) on domestic credit expansion. The hard currency policy was continued so as to reduce imported inflation. In 1981, a slight fall in GDP is expected. In Finland—as in Austria—fiscal policy played an expansionary role in 1979. The general government net financial surplus amounted to 1 per cent of GDP compared with 1.7 per cent in 1978. However, the current account deficit equalled 3.3 per cent of GDP in 1979 compared with no more than 0.6 per cent in the previous year.[18] Monetary policy became gradually more restrictive from mid-1979 and it is estimated that fiscal policy began to slightly restrain the growth of the economy during 1980; its action should be neutral in 1981.

Policy makers in *Norway* and *Sweden* have so far refrained (as in Finland) from specifying monetary targets and have tried, broadly speaking, to combine a rather liberal fiscal policy with a more restrictive monetary policy. Norway had adopted a stabilization programme in 1978 with the aim of moderating price and cost rises. The Norwegian krone was devalued in February of that year and a price and incomes freeze was imposed from September to the end of 1979. Excluding oil and shipping activities, GDP rose only moderately, by 0.7 per cent in 1978, 2 per cent in 1979 and 1.6 per cent in 1980. However, the current account deficit rose and in 1980 it reached about 15 per cent of GDP. In that year, the government budget (Central Government and Social Security) recorded a deficit equal to 6.5 per cent of GDP compared with 5.5 per cent in 1979 (and a surplus in 1975). A different picture emerges when crude oil production and related activities (and taxes on oil) are taken into account. For 1980, GDP rose by about 4 per cent and the current account closed in surplus (there was a deficit in 1979). Owing to revenue from taxes on oil extraction, the government budget too showed a surplus. The gross value of oil-related activities (oil and gas extraction, and pipeline transport) accounted for 9.4 per cent of GDP in 1979 and 15 per cent in 1980. The export value of crude oil and natural gas virtually doubled between the same two years. Oil revenue has been extensively used by the government in recent years to boost domestic demand. In 1981, GDP is expected to increase by no more than 1 per cent.

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[17] Policies followed in the United Kingdom and the current debate surrounding them are examined in the fourth section of this chapter.

[18] However, about half of the widening deficit was due to trade with the centrally planned economies. The deficit with the Soviet Union will be automatically reduced in 1981 on the basis of the existing bilateral payment arrangements which will permit a sizeable increase of Finnish exports to that country.

In *Sweden*, there had been a relatively high growth of GDP in 1979 when exports rose by more than 5 per cent, partly as a consequence of the 1978 devaluation. Output during 1980 was affected by the protracted labour disputes in the second quarter of the year. Inflation accelerated sharply between 1979 and 1980 (15 per cent compared with 7 per cent) and so did hourly earnings in manufacturing. The current balance of payments worsened between 1979 and 1980, moving from a deficit of just under 3 per cent of GDP. This was mainly due to terms of trade deterioration but there was also a worsening in real terms as exports declined, while imports increased. The larger foreign deficit was fully absorbed by the general government. GDP is expected to increase by less than 1 per cent in 1981.

Switzerland is the only country in western Europe where the growth rate in 1980 was higher than in 1979 (3 per cent against 2.2 per cent).[19] The major stimulus came from the foreign sector where exports of goods and services (at constant prices) rose by more than 6 per cent in 1980 compared with 3.5 per cent in 1979. The Swiss franc's real depreciation vis-à-vis the dollar and other major currencies (due to relative price developments) appears to have been the main factor behind the favourable export performance. However the major sectors of domestic demand also developed more favourably in 1980, partly as a consequence of larger exports. Furthermore, a foreign account surplus in 1979 and very low inflation rates permitted the adoption of neutral policies.

In 1980 *Belgium* and *the Netherlands* continued to record relatively low inflation rates. The current balance deteriorated in Belgium but not in the Netherlands. In both countries there was an unintended widening of the government deficit and policies are now directed to a gradual narrowing of this. The preoccupation with maintaining (or restoring) external competitiveness dominates policies in both countries and the large (and widening) public sector deficits are seen as a potential source of inflation. Because of the close economic relations, efforts are being made to keep inflation broadly in line with that in the Federal Republic of Germany. For 1981, GDP is expected to grow by approximately 1 per cent in Belgium, while recent estimates project no growth at all in the Netherlands.

Policies and developments in the *United States* will obviously continue to have repercussions on western Europe. Some of the present policy issues are examined in the fourth section of this chapter. Prospects for the remaining months of 1981 will be heavily dependent on the implementation of the policy choices of the new Administration. In 1980 monetary policy was restrictive and it would appear that it will remain so in 1981. However, fiscal policy had some expansionary effect in 1980. The output forecasts—prepared by the previous Administration—indicate only a modest recovery between the last quarter of 1980 and the last quarter of 1981 (1.7 per cent for GNP in real terms). Between the last quarter of 1979 and the last quarter of 1980 there was a decline of 0.3 per cent.

(iv) Labour market developments

EMPLOYMENT AND LABOUR PRODUCTIVITY

In the wake of a relatively high output growth (relative to the trend of the 1970s), 1979 was a favourable year for employment and labour productivity in western Europe. Employment rose by 0.8 per cent and labour productivity (output per employed person) by 2.7 per cent. The increase in employment approached one million persons—a figure very near to the estimated growth of potential labour supply.[20] The increase of employment in western Europe was spread over all the individual countries, with the exception of France where employment remained at the 1978 level. Labour productivity continued to increase rapidly in France where GDP grew slightly less than in the region as a whole.

As shown in the following text table, developments in western Europe were much less favourable in 1980, when the sharp deceleration in output was reflected in much smaller increases of both employment and labour productivity.

Industrial western Europe: annual percentage changes, in GDP, employment and productivity

	GDP	*Employment*	*Productivity* [a]
1978	2.2	0.5	1.7
1979	3.5	0.8	2.7
1980	1.5	0.1	1.4

[a] Labour productivity (output per person employed).

Employment rose only marginally in 1980 and for 1981 no increase at all is forecast; it is indeed likely that there will be some decline. The increase in the potential labour force—by more than one million persons—is bound to increase open and/or concealed unemployment.

In western Europe, employment changes in 1980 varied considerably among countries (see table 1.1.8) mainly reflecting differences in the course of output and, to a minor extent, the varying role of the public sector as a "shock absorber". Employment declined most in the United Kingdom (by more than 400,000 persons); the decline

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[19] As mentioned before, the growth rate in Norway in 1980 was higher than in 1979 when oil and shipping activities are included.

[20] It has to be stressed that the concept of "potential labour force" is an elusive one because of the interplay of economic and social factors and their influence on activity rates (especially for women), this latter component being extremely difficult to assess and quantify. The orders of magnitude given in the text are derived from a previous secretariat study: Economic Commission for Europe, "Employment and labour force in western Europe: the prospects to 1985 by major sectors", *Economic Bulletin for Europe*, Vol. 30, No. 2, United Nations, New York, 1979.

Table 1.1.8

Employment by major sectors, and unemployment

A = Annual changes in thousand persons
B = Annual percentage change

Country and year	Total economy		Agriculture		Non-agricultural enterprise sector				General government		Unemployment rate[a] (Per cent)	
					Manufacturing		Non-manufacturing					
	A	B	A	B	A	B	A	B	A	B		
Austria												
1970-1973	31	1.0	−23	−5.3	7	0.9	32	2.4	15	3.8	1969-1973	1.4
1974-1978	16	0.5	−13	−3.6	—	—	11	0.8	18	3.7	1973-1978	1.6
											December 1978	2.0
1979	11	0.3	−11	−3.5	−1	−0.1	16	1.1	7	1.3	December 1979	1.8
1980	13	0.4	−6	−2.0	10	1.1	−3	−0.2	12	2.2	December 1980	2.1
Belgium[b]												
1970-1973	15	0.4	−12	−6.8	−4	−0.3	19	1.1	12	2.3	1969-1973	2.5
1974-1978	−8	−0.2	−5	−3.9	−38	−3.4	18	1.0	17	2.9	1973-1978	5.7
											December 1978	8.5
1979	42	1.1	—	—	−28	−2.8	54	2.8	16	2.5	December 1979	9.0
1980	−7	−0.2	..	..	..	..	..	..	..	..	December 1980	10.3
Denmark												
1970-1973	26	1.1	−12	−4.7	—	—	7	0.7	31	5.7	1969-1973	1.1
1974-1978	18	0.7	−2	−1.1	−12	−2.0	6	0.6	26	3.8	1973-1978	4.1
											December 1978	6.6
1979	28	1.1	−7	−3.3	3	0.6	−2	−0.2	34	4.5	December 1979	4.8
1980	7	0.3	−5	−2.4	−4	−0.7	..	..	..	..	December 1980	7.6
Finland												
1970-1973	26	1.2	−24	−6.1	20	4.1	17	1.8	13	4.4	1969-1973	2.4
1974-1978	−21	−0.9	−18	−5.6	−6	−1.0	−14	−1.4	17	4.3	1973-1978	4.0
											December 1978	7.5
1979	34	1.6	−3	−1.1	14	2.7	12	1.4	11	2.5	December 1979	5.3
1980	73	3.4	5	2.0	23	4.3	39	4.4	6	1.4	December 1980	5.0
France												
1970-1973	192	0.9	−135	−5.1	89	1.6	157	1.7	81	2.9	1969-1973	1.5
1974-1978	64	0.3	−76	−3.5	−65	−1.1	147	1.5	58	1.8	1973-1978	3.7
											December 1978	5.7
1979	−3	—	−54	−2.8	−97	−1.7	140	1.4	8	0.2	December 1979	6.4
1980	−112	−0.5	−55	−2.9	−88	−1.6	..	..	..	..	December 1980	6.8
Germany, Fed. Rep. of												
1970-1973	83	0.3	−110	−5.0	5	0.1	77	0.7	111	4.3	1969-1973	0.8
1974-1978	−300	−1.2	−69	−3.8	−207	−2.1	−84	−0.8	60	2.0	1973-1978	3.2
											December 1978	3.6
1979	317	1.3	−64	−4.0	56	0.6	217	2.0	108	3.5	December 1979	3.1
1980	150	0.6	..	..	27	0.3	..	..	..	..	December 1980	4.0
Ireland												
1970-1973	−3	−0.3	−10	−3.3	2	0.7	2	0.6	3	1.7	1969-1973	5.3
1974-1978	−2	−0.2	−6	−2.5	—	—	—	—	4	1.8	1973-1978	8.0
											December 1978	8.5
1979	13	1.3	−9	−3.9	8	3.7	10	2.6	4	1.9	December 1979	7.5
1980	11	1.0	−6	−2.7	7	3.1	7	1.8	3	1.4	December 1980	10.4
Italy												
1970-1973[c]	157	1.2	−25	−1.9	71	1.5	40	0.8	71	3.6	1969-1973	4.8
1974-1978	152	0.8	−64	−2.1	19	0.3	142	1.6	55	2.4	1973-1978	5.7
											December 1978	7.6
1979	198	1.0	−79	−2.7	15	0.3	202	2.2	60	2.5	December 1979	7.7
1980	297	1.5	−78	−2.7	−28	−0.5	..	..	..	..	December 1980	8.1

TABLE 1.1.8 (*continued*)

Country and year	Total economy		Agriculture		Non-agricultural enterprise sector: Manufacturing		Non-agricultural enterprise sector: Non-manufacturing		General government		Unemployment rate [a] (Per cent)	
	A	B	A	B	A	B	A	B	A	B		
Netherlands [d]												
1970-1973	13	0.3	−8	−2.3	−18	−1.5	14	0.6	25	3.8	1969-1973	1.6
1974-1978	—	—	−5	−1.6	−29	−2.7	10	0.4	24	3.2	1973-1978	3.6
											December 1978	4.1
1979	40	0.9	−5	−1.8	−15	−1.5	48	1.9	12	1.4	December 1979	4.1
1980	−5	−0.1	−3	−1.1	−19	−2.0	10	0.4	7	0.8	December 1980	5.9
Norway [d]												
1970-1973	11	0.7	−12	−6.1	4	0.9	7	1.1	12	5.2	1969-1973	0.9
1974-1978	21	1.3	−5	−3.0	—	—	14	1.8	12	4.1	1973-1978	1.7
											Q4 1978	2.0
1979	11	0.7	—	—	−7	−1.8	9	1.1	9	2.8	Q4 1979	1.7
1980	9	0.5	−1	−0.7	−1	−0.3	5	0.6	6	1.8	Q4 1980	1.8
Sweden												
1970-1973	25	0.7	−16	−5.0	−4	−0.4	−5	−0.3	50	6.6	1969-1973	2.2
1974-1978	44	1.1	−6	−2.1	−10	−1.0	7	0.4	53	5.4	1973-1978	1.9
											December 1978	2.1[e]
1979	60	1.5	−6	−2.4	−1	−0.1	14	0.8	53	4.6	December 1979	1.7[e]
1980	58	1.4	−1	−0.4	4	0.4	42	2.4	13	1.1	December 1980	2.0[e]
Switzerland												
1970-1973	30	1.0	−7	−2.7	−8	−0.7	32	2.3	13	4.2	1969-1973	—
1974-1978	−53	−1.7	−5	−2.0	−33	−3.0	−22	−1.5	7	2.1	1973-1978	0.3
											December 1978	0.4
1979	22	0.7	−3	−1.3	−3	−0.3	20	1.4	8	2.2	December 1979	0.3
1980	58	2.0	..	..	13	1.4	..	..	..	..	December 1980	0.2
United Kingdom [b]												
1970-1973	34	0.2	−26	−3.3	−130	−1.5	55	0.5	135	3.2	1969-1973	2.9[f]
1974-1978	−12	−0.1	−13	−1.8	−120	−1.5	26	0.2	95	2.0	1973-1978	4.3[f]
											December 1978	5.5[f]
1979	159	0.6	−18	−2.8	−78	−1.1	182	1.6	73	1.5	December 1979	5.4[f]
1980	−416	−1.7	1	0.2	−366	−5.0	14	0.1	−65	−1.3	December 1980	8.8[f]
Canada												
1970-1973	232	2.9	−16	−2.5	33	1.8	187	3.6	28[h]	6.1[h]	1969-1973	5.6
1974-1978	242	2.6	—	—	6	0.4	217	3.5	19[h]	3.4[h]	1973-1978	6.8
											December 1978	8.1
1979	397	4.0	16	2.8	76	3.9	313	4.6	−8[h]	−1.3[h]	December 1979	7.1
1980	259	2.5	−8	−1.4	−6	−0.3	274	3.8	−1[h]	−0.2[h]	December 1980	7.4
United States												
1970-1973	1 627	2.0	−39	−1.1	−3[g]	—[g]	1 285	2.9	384	3.0	1969-1973	5.0
1974-1978	1 993	2.3	−22	−0.6	70[g]	0.5[g]	1 596	3.2	349	2.4	1973-1978	6.6
											December 1978	5.9
1979	2 572	2.7	−45	−1.3	557[g]	2.7[g]	1 812	3.3	248	1.6	December 1979	5.9
1980	325	0.3	13	0.4	−697[g]	−3.3[g]	758	1.3	251	1.6	December 1980	1.4

Sources: National statistics, and ILO, *Yearbook of Labour Statistics*, Geneva 1980; OECD, *Labour Force Statistics, 1967-1978*, and *Quarterly Supplement, November 1980*, Paris 1980.

[a] Unemployment as a percentage of total civilian labour force. Annual averages for 1969-1973 and 1973-1978. Data for December 1978, 1979 and 1980 are seasonally adjusted.

[b] Employment refers to June of each year.

[c] Excludes self-employed for 1970-1973.

[d] Man-years.

[e] Not seasonally adjusted.

[f] Unemployed as a percentage of the total number of employees. Excluding school-leavers.

[g] Employees only.

[h] Public administration and defence only.

was mainly concentrated in manufacturing, but there was a reduction also in the government sector, which for many years had been the major support to total employment growth. Employment also declined considerably in France where the fall in manufacturing continued and was larger than the outflow of manpower from agriculture; it also appears that employment growth in the government sector remained very modest in 1980. In Belgium and the Netherlands there was virtually no change in total employment.

Employment rose most in Finland—at the exceptional rate of more than 3 per cent—implying an increase in activity rates and a decline in unemployment. The 1980 increase partly reflects the lagged response of employment to the sharp increase in output and labour productivity which took place in 1978 and 1979. Employment rose sharply, in comparison with historical long-term trends, in Ireland, Italy, Sweden and Switzerland. In Italy, the increase was concentrated entirely in the service sectors (private and public), the remarkable increase of manufacturing output being completely due to increases in labour productivity. In the other three countries of this group, all the major sectors contributed to the over-all increase, although the contribution of manufacturing was small in Sweden and Switzerland.

The main features of sectoral employment changes in 1980 in western Europe may be summarized as follows: the decline of agricultural employment continued at a much reduced rate in comparison with the pre-recession period; employment in the government sector continued to rise (except in the United Kingdom), but at a relatively low rate and the deceleration in the rate of increase between 1973 and 1979 continued in 1980; and employment in manufacturing followed output developments fairly closely, taking into account inter-country differences in long-term labour productivity growth.

Labour productivity rose in all countries in 1980 except in Denmark and the United Kingdom, although—with a few exceptions—at a lower rate than in 1979 (table 1.1.9). In 1979 labour productivity had increased faster in the manufacturing sector than in the rest of the economy but in 1980, as could be expected from previous cycles, the opposite pattern occurred. It was shown in the previous *Survey* that changes in labour productivity after 1973—when related to output changes—compare unfavourably with past trends, and developments in 1980 reinforce this conclusion. Low investment and the associated ageing of the capital stock is obviously playing a role; but the accelerated "tertiarization" of the economy—typical in periods of only slow growth—appears to be an important contributing factor, since the decline in the growth of labour productivity appears to be more marked for the non-manufacturing than for the manufacturing sector.

In North America, employment had continued to increase much faster than in western Europe in 1979—that is, by about three million persons or 3 per cent. Labour productivity, which had increased at very modest rates in previous years, declined by nearly 1 per cent in Canada and barely rose in the United States. In 1980, employment grew by no more than half a million persons and labour productivity declined.

UNEMPLOYMENT

In contrast with 1979, unemployment rose alarmingly fast in western Europe during 1980: between the end of 1979 and the end of 1980, there was an increase of

TABLE 1.1.9

Output per person employed, total economy and manufacturing

(*Annual percentage change*)

	Total economy						*Manufacturing*					
Country	*1970-1973*	*1974-1978*	*1977*	*1978*	*1979*	*1980*[a]	*1970-1973*	*1974-1978*	*1977*	*1978*	*1979*	*1980*[a, b]
Austria	5.0	2.2	3.1	0.9	4.7	3.0	6.1	2.3	1.1	1.5	6.4	3.5
Belgium	5.0	2.6	1.1	3.1	1.3	1.5	8.1	4.7	3.3	6.0	6.6	..
Denmark	2.8	1.2	0.9	−1.1	2.4	−1.5	4.2	3.0	3.8	1.0	3.7	..
Finland	4.8	2.3	2.9	4.5	5.3	2.0	3.7	1.3	2.0	8.4	7.8	2.0
France	4.7	2.5	2.0	3.0	3.2	2.5	4.7	3.7	4.1	3.8	4.5	1.0
Germany, Fed. Rep. of	4.1	3.2	3.2	2.5	3.3	1.5	4.0	3.5	2.8	1.6	4.4	1.0
Ireland	4.3	4.2	5.4	5.4	0.6	1.0	5.2[b]	4.4[b]	3.8[b]	6.8[b]	2.9[b]	−1.5[b]
Italy	4.3	1.4	1.4	1.9	4.0	2.0	4.2	1.5	2.0	2.6	7.1	6.5
Netherlands [c]	4.7	2.5	2.2	2.1	1.3	0.5	7.4	4.4	2.8	3.7	4.4	4.0
Norway [c]	3.3	3.3	1.6	3.4	3.7	2.0	3.7	−0.3	−1.7	—	3.4	2.0
Sweden	1.8	0.3	−2.6	1.0	2.4	0.5	4.4	0.2	−2.0	2.8	5.5	—
Switzerland	3.1	0.9	2.3	−0.3	1.5	1.0	5.4	2.0	5.6	1.0	1.7	4.0
United Kingdom	2.9	1.0	2.4	2.9	1.3	−0.5	4.3	0.8	1.6	1.1	1.4	−4.0
Canada	2.8	0.7	1.0	0.1	−0.9	−3.5	3.6	1.8	3.1	2.0	—	−1.5
United States	1.5	0.3	1.8	0.4	0.1	−0.5	3.4[d]	1.5[d]	3.6[d]	0.6[d]	0.4[d]	−1.5[d]

Source: For output: United Nations, *Yearbook of National Accounts Statistics*, New York; OECD; *National Accounts of OECD Countries*, Paris; and national statistics, for employment: as for table 1.1.8 (employment by major sectors).

Note: Except for 1980, output in manufacturing refers to gross value added at constant prices. The data in this table may therefore differ from those shown in table 1.1.2 where industrial output is based on the indices of industrial production.

[a] The provisional estimates for 1980 have been rounded to the nearest 0.5 percentage point.

[b] Output data are based on short-term indices of manufacturing production.

[c] Employment data refer to man-years.

[d] Employment data refer to wage- and salary-earners only.

1.7 million persons, while between the end of 1978 and the end of 1979 there had been a marginal decline and an increase of 200,000 persons the year before. Unemployment rates at the end of 1980 for the individual west European countries as well as for Canada and the United States are shown in table 1.1.8.

A comparison between changes in employment and unemployment (and therefore in the total labour force) can be made only on the basis of annual averages, as employment levels are not yet known for the end of the year in most countries. The relevant figures for 1978, 1979 and 1980, for industrial western Europe as a whole, are shown in the following text table:

Employment and unemployment changes in western Europe [a]

(Thousand persons)

	Employment (1)	*Unemployment (2)*	*Labour force (3) = 1 + 2*
1978	544	296	840
1979	965	56	1 021
1980	122	705	827

[a] Annual averages. In 1980, employment was about 118 million persons and unemployment about 7.1 million persons.

The relative growth of employment and unemployment was reversed between 1979 and 1980. However, the much lower employment increase in 1980 was not fully offset by the much steeper increase in unemployment, and the growth of the labour force decelerated between the two years. While demand for labour weakened, its potential supply rose in western Europe because of demographic developments and changes in the age structure of the population of working age (see below in this section). The deceleration in the growth of the labour force in 1980 thus implies an increase in concealed unemployment.

Normally, cyclical changes in employment and unemployment follow, with a time-lag, changes in output. In 1980 there was hardly any lag at all: in most countries the unemployment increase was virtually coincident with the downturn or deceleration in output. Only in Finland and Switzerland was the level of unemployment somewhat lower at the end of 1980 than one year before, but the current trend is also upward in both these countries.

Data on the structure of unemployment during the recent upsurge are few and where they do exist, probably do not yet fully reflect the extent of the continuing rise in the total. However, two characteristics of unemployment in 1980 in western Europe can already be seen, namely, the greater increase for men than for women (in sharp contrast with the 1973-1979 experience) and a faster rate of increase in the number of unemployed men in the central age groups (25-49 years) compared with the rise in total unemployment.[21] The following text table brings together some estimates of changes in the levels of unemployment for broad sex-age groups between 1979 and 1980:

	Change in the number of unemployed 1979 to 1980 (1979 = 100)			
Country and period	*All ages*	*Under 25 years*	*Females 25-49 years*	*Males 25-49 years*
Finland				
2nd quarter 1979/2nd quarter 1980 . . .	77	77	80 [a]	75 [a]
France				
December 1979/December 1980 . . .	111	112	109	107
Germany, Federal Republic of				
December 1979/December 1980 . . .	129	133	120 [b]	142 [b]
Netherlands				
December 1979/December 1980 . . .	149	161	129	163
Sweden				
December 1979/December 1980 . . .	120	140	116	136
United Kingdom				
October 1979/October 1980	151	165	144 [a]	151 [a]

Source: National statistics.

[a] Persons aged 25-54 years.

[b] Under 20 years and 29-59 years, respectively.

[c] Insured unemployed only.

In all countries the percentage increase in unemployed young workers was higher than that for total unemployment, but the difference has narrowed in comparison with the past. The data in the text table suggest two other significant characteristics of the recent evolution in unemployment. These are, first, a sharp increase in the number of unemployed males in the central working age groups (approximately 25-49 years) and, secondly, a relatively moderate rise in the number of unemployed females in the same age groups. As to the former, with the exception of France, the percentage change in unemployed males of central working age was in all cases higher than, or at least equal to the rise in total unemployment. In Sweden the relative increase was similar to that for young workers; and in the Federal Republic of Germany and the Netherlands adult male workers experienced a larger increase in unemployment than did young workers. This shift in the unemployment pattern, where the major burden of higher unemployment no longer falls only on young workers and females, primarily reflects the rapidly deteriorating situation in 1980. The reduction of employment in industry and services could no longer be accommodated by such devices as early retirement and the postponement of recruitment of young people. However, demographic factors also played a role.

Rapidly rising unemployment for the central age groups, which account for a high proportion of primary income-earners and of those with a dependent family, obviously has economic and social implications different from those emanating from youth unemployment. In addition, it will require a shift in labour market policies to the extent that these have been concentrated in recent years on the employment problems of the young and, to a lesser extent, older workers.

The second prominent feature is the relatively small increase in the number of unemployed females. In all five countries in which unemployment increased the percentage rise for women in the central age groups was lower than that for total unemployment and in most cases, the exception being France, much less than for men in the same age bracket. In contrast, the improvement of employment conditions in Finland between 1979 and 1980 was less marked for women in the central age group than for the other two groups.

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[21] For past developments see, *Economic Survey of Europe in 1978*, pp. 13 *et seq.* and *Economic Survey of Europe in 1979*, p. 23.

Labour supply

The present recession has coincided with a particularly large increase in the population of working age in most west European countries. In the secretariat study cited above (footnote 20, page 15) it was shown that, in the decade 1975 to 1985, the population of working age in western Europe would increase much faster than in the previous decade and the increase in the potential labour force was estimated at about one million persons per year (excluding inter-country migration). However, the growth in population of working age (and in the potential labour force) is not the same in every year of the decade: 1980 and 1981 are the years with the highest annual increase. The percentage increase in the population of working age in the thirteen west European countries combined rose from an annual 0.7 per cent in 1978 and 1979 to 0.9 per cent in 1980 and will rise further to 1.0 per cent in 1981. These annual rates of increase will start to fall somewhat in 1982 and 1983; but it is not until 1984 that the annual increase falls to rates similar to or even below those in the latter half of the 1970s. In absolute terms these trends imply an increase in 1980 of over 1.7 million in the population of working age compared with somewhat more than 1.3 million in 1979—a difference of close to 400,000 persons.

Although there is a rapid growth of the population of working age in most countries of the region, it is particularly marked in Austria, France, the Federal Republic of Germany, Ireland and the Netherlands. In the first three countries the relative increase in 1981 will be nearly twice as high as in 1978 or 1979, while in Ireland and the Netherlands the previous high rates will be maintained:

Estimated percentage increase of population of working age (15-64 years)

	1978	*1979*	*1980*	*1981*
Austria	0.6	0.6	0.8	1.0
France	0.7	0.7	1.2	1.3
Germany, Federal Republic of	0.7	0.6	1.0	1.2
Ireland	1.9	1.9	2.0	2.0
Netherlands	1.4	1.5	1.5	1.5

In the mean time the age composition of the working age population is changing with an increasing concentration in the central age group. In the first years of the decade 1975-1985, the largest increases were for young persons (the 15 to 24 years age group) reflecting past demographic developments and, in particular, the "baby boom" of the late 1950s. This large group is now gradually moving into the central age group, even though the growth rate of the younger age group is still above that of the working population as a whole. Whereas 1979 was a year of high growth for the younger age group, with an estimated increase of 1.5 per cent, the data for 1980 already indicate a slowing down to about 1.2 per cent. Only in Denmark is the growth of this age group still accelerating and in Ireland it remains high but stable. The other countries fall into two broad groups: one (Austria, Belgium, Federal Republic of Germany, Italy, the Netherlands, Sweden, Switzerland and the United Kingdom) is where the growth of the number of persons in the 15-24 age group was high, but has now started to decline; and the second is a smaller group consisting of countries where growth is stable but low (Norway) or even negative (Finland).

The arrival of these large numbers into the central age group greatly affects the potential labour supply, and especially male labour supply since activity rates for men in the central age group approach 100 per cent, which is not the case for women. Whereas for western Europe as a whole the increase in the actual male labour force in 1979 was apparently very small (of the order of 0.2 per cent), in 1980 the rate of growth is estimated to have been close to 0.7 per cent. In absolute terms this represents an increase of somewhat over 500,000 compared with just over 100,000 in 1979. However, the larger increase in 1980 has been more than offset by a much smaller increase in the female labour force as their activity rates declined primarily because of depressed labour market conditions. Therefore, in most countries and for western Europe as a whole, the percentage change in the actual labour force was smaller in 1980 than the increase in the population of working age, implying that part of the rise in the potential labour supply has taken the form of concealed unemployment. The gap between the potential and actual labour force increase was particularly large in France where employment did not increase at all and open unemployment only moderately. In the Federal Republic of Germany and the Netherlands the gap between potential and actual labour force growth was less, suggesting that hidden unemployment was less important; but open unemployment increased substantially in these two countries.

2. COSTS AND PRICES

Changes in earnings and labour costs

The rise in hourly average earnings in west European manufacturing industry accelerated in 1980. The average rise in 1979 was just over 9 per cent, but in 1980 the year-on-year increase rose to 10.7 per cent in the first quarter and 11.2 per cent in the second. There was a further acceleration in the third quarter, even when the exceptional case of Norway is ignored: excluding both Ireland and Norway the average rate of increase was just over 10 per cent in the first quarter and a little over 11 per cent in the third (table 1.2.1). Partial data suggest that the rate of change was probably levelling out or even decelerating slightly in the last quarter. The degree of acceleration through the year varies widely among countries, with relatively strong increases in the Federal Republic of Germany, Norway and Switzerland where the rates of increase had been well below the west European average in 1979. Since the acceleration was relatively smaller in countries where the growth of earnings had been well above average (Italy and the United Kingdom) there was a slight fall in inter-country differences in the rate of earnings growth; nevertheless the differences remained large in 1980, ranging between 4-5 per cent in Switzerland and the Netherlands to over 20 per cent in Italy. A handful of countries have gone against the European trend: in Austria the growth of earnings peaked in the first quarter of 1980 and decelerated in the subsequent two, although for the year as a whole the increase will still be higher than in 1979. In Denmark the rise in hourly earnings has been decelerating since the last quarter of 1979, largely because of the exclusion of energy prices from the price index on which wage adjustments are based. A statutory incomes policy has held the increase in wage rates in the Netherlands roughly constant and in Norway the ending of the incomes and price freeze at the end of 1979 was followed by a relatively moderate wage settlement in the spring, with emphasis on higher wages for the lower paid. This agreement was encouraged by tax concessions and higher family allowances but the prospect of a successful solution to the well-known problems of

Table 1.2.1

Annual and quarterly changes in average hourly earnings in manufacturing industry

(Percentage change over corresponding period of previous year)

				1979				*1980*			
Country	*1978*	*1979*	*1980*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
Austria [a]	5.7	5.8		6.7	5.9	4.7	5.7	7.4	7.3	6.2	6.7
Belgium [b]	8.7	6.5	8.7	5.9	7.7	5.7	7.5	7.3	8.5	9.5	9.3
Denmark [c]	10.3	11.2		9.7	10.4	11.2	13.4	13.0	12.1	11.4	
Finland	7.4	11.6		12.1	14.5	11.4	8.4	9.4	13.0	12.6	
France [d]	13.0	13.0	14.5	12.9	13.4	12.3	13.0	13.9	14.9	15.6	15.2
Germany Fed. Rep. of [e]	5.0	5.5	6.4	6.2	5.8	4.9	5.1	4.5	6.5	7.0	7.5
Ireland [f]	14.8	15.3		14.6	11.0	17.7	17.9	23.0	23.4	15.6	
Italy [g]	16.2	19.0	22.5	15.7	17.0	20.4	22.1	22.4	23.2	22.5	21.9
Netherlands [g]	5.7	4.4	4.3	4.3	4.3	4.8	4.3	4.7	4.7	4.1	4.1
Norway [c, h]	7.9	2.8		5.3	4.0	1.2	0.9	2.2	4.4	16.3	
Sweden [c]	8.6	7.8	8.5[i]	6.5	9.3	7.3	7.6	8.1[i]	5.2[i]	8.7[i]	12.2[i]
Switzerland [j]	3.2	2.7	5.2	2.8	2.7	2.4	3.0	5.3	4.8	5.1	5.6
United Kingdom [k]	14.4	15.6	17.8	14.7	15.4	13.9	18.2	17.2	17.8	21.4	15.0
Canada	7.1	8.8	10.1	7.9	8.9	9.1	9.2	9.8	9.3	10.0	10.9
United States	8.8	8.4	8.7	9.0	8.9	8.5	7.9	7.4	8.0	9.0	10.4

Sources: National statistics, and OECD, *Main Economic Indicators*, Paris.

[a] Monthly earnings of wage-earners in total industry.

[b] Industry. Adult male workers.

[c] Including mining and quarrying.

[d] Wage rates. Quarterly data, referring to the beginning of January, April, July and October respectively. Annual figures are obtained by averaging the five observations from January of one year to January of the following year.

[e] Quarterly data, referring to January, April, July and October.

[f] Quarterly data, referring to March, June, September and December.

[g] Wage rates.

[h] Males only.

[i] Excludes retroactive supplements.

[j] Data refer to workers who had accidents during the relevant period.

[k] Weekly earnings (all employees), Great Britain.

TABLE 1.2.2

Changes in real hourly earnings in manufacturing industry

(*Percentage change over corresponding period of previous year*)

				1979				*1980*			
Country	*1978*	*1979*	*1980*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
Austrian [a]	2.0	2.0		3.1	2.6	1.1	1.2	2.0	0.8	−0.7	0.1
Belgium [b]	4.0	2.0	2.0	1.9	3.4	0.9	2.3	0.9	2.0	2.8	1.8
Denmark [c]	0.2	1.5		2.6	2.4	−0.7	1.6	−0.3	−1.6	−0.1	
Finland	0.4	3.8		4.7	6.9	3.6	0.4	0.1	1.6	0.4	
France [d]	3.6	2.0	1.0	2.5	3.0	1.4	1.3	0.5	1.1	1.8	1.3
Germany, Fed. Rep. of [e]	2.2	1.3	0.9	3.2	2.3	0.1	−0.2	−0.9	0.6	1.5	2.1
Ireland [f]	6.7	1.8		3.4	−1.2	3.6	1.6	6.5	2.7	−2.7	
Italy [g]	3.7	3.7	1.1	2.5	3.0	4.9	3.7	1.5	1.9	0.6	0.3
Netherlands [g]	1.5	0.2	−2.1	0.1	0.1	1.0	−0.3	−1.0	−1.7	−2.8	−2.4
Norway [h]	0.3	−1.9		—	−0.9	−2.8	−3.4	−5.4	−5.2	3.7	
Sweden [c]	−1.3	0.6	−4.6[i]	0.7	3.0	−0.3	−1.5	−4.5[i]	−7.1[i]	−4.2[i]	−2.2[i]
Switzerland [j]	2.1	−0.9	1.2	0.9	−0.5	−1.9	−2.0	1.0	0.9	1.3	1.4
United Kingdom [k]	5.6	2.0	−0.2	4.7	4.3	−1.8	0.8	−1.6	−3.0	4.3	−0.3
Canada	−1.7	−0.4	−0.1	−1.1	−0.4	0.4	−0.3	0.4	−0.3	−0.5	−0.2
United States	1.0	−2.6	−4.3	−0.7	−1.6	−2.9	−4.3	−6.0	−5.7	−3.5	−2.0

Sources and footnotes: As for table 1.2.1.

Note: The change in real earnings is the change in money earnings deflated by the corresponding change in the consumer price index.

"re-entry" from an incomes freeze was undermined by accelerating price rises and a tight labour market: platform workers in the North Sea obtained large pay increases after their strike in July and this set a pace for the rest of the economy.

The growth of real earnings began to slow down in the second half of 1979 as higher oil and commodity prices began to work their way through to consumer prices. This deterioration continued into the first half of 1980 when the change was negative in nearly half of the countries listed in table 1.2.2. There was some recovery in the third quarter, notably in Norway (where the fall in real earnings between the beginning of 1979 and the middle of 1980 had been particularly sharp) and the United Kingdom, but on average the increase in 1980 as a whole is likely to have been much less than in 1979. In Sweden, Denmark and the Netherlands the fall in real earnings persisted through the first three quarters of 1980; in the latter two countries this is largely explained by the factors already mentioned.

The rise in nominal earnings following the second major price increase for oil has been much less than that which followed the first in 1973: in 1974 and 1975 nominal earnings (for the same set of countries in table 1.2.1) rose on average by some 17-18 per cent, compared with 12-14 per cent in 1972-1973, whereas in 1980 the average increase looks as though it will be around 11 per cent compared with just over 9 per cent in 1978-1979. The contrast in the development of real earnings is even sharper: in 1974 and 1975 they rose on average by 4-5 per cent while in the first half of 1980 the average change was slightly negative and for the year as a whole the increase is likely to have been negligible.

However there have been much larger inter-country differences in the growth of both nominal and real wages than in 1974 and 1975, and in several countries in 1980 there have still been increases in real earnings at a time when manufacturers' selling prices have been rising relatively slowly and productivity growth (table 1.1.9) has been falling.

There were sharp increases in unit labour costs in 1980: in western Europe they rose on average for the economy as a whole by nearly 11 per cent compared with just over 7 per cent in 1979 and about 7.5 per cent in 1978 (table 1.2.3). Again the differences between countries are large: in one group consisting of Austria, Belgium, the Federal Republic of Germany, the Netherlands and Switzerland the rate of increase lay between 4 and 6 per cent, but elsewhere the range was 10 to 22 per cent. Given the acceleration of nominal wages throughout most of the year and the deceleration of output, particularly in the latter half, the increase of unit labour costs was probably accelerating in most of western Europe throughout 1980.

Estimates of the contribution of higher earnings to the change in prices, as measured by the implicit price deflator of total final expenditure are given in table 1.2.4 (for those countries where the relevant data are available). The contribution of higher earnings can be seen to vary considerably, from 17 per cent in the Netherlands (a result of incomes policy) to 56 per cent in the United Kingdom. In Austria, Finland, the Federal Republic of Germany and Sweden the earnings contribution is very much larger than in 1979,[22] although it is still lower than the weight of earnings in total final expenditure. In Austria, Finland, the Federal Republic of Germany and the Netherlands, the contribution of higher import prices was still higher than that of increased earnings in 1980 although, except in France and the Netherlands, the contribution of import prices was generally lower than in 1979. Higher indirect taxes made a significant contribution to rising prices in 1980 in Sweden,

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[22] cf. *Economic Survey of Europe in 1979*, table 2.5.

TABLE 1.2.3

Unit labour costs [a] for the whole economy

(Percentage change over previous year)

Country	*1978*	*1979*	*1980* [b]
Austria	7.7	1.3	4.0
Belgium	4.2	4.1	6.0
Denmark	8.1	7.2	11.5
Finland	2.5	6.9	11.5
France	9.3	9.7	12.5
Germany, Federal Republic of	3.3	2.6	5.5
Ireland	10.3	17.6	18.5
Italy	14.0	13.8	19.0
Netherlands	5.3	4.9	5.5
Norway	6.1	1.3	4.0
Sweden	9.8	5.6	10.0
Switzerland	4.6	2.7	. .
United Kingdom	10.5	14.2	22.0
Canada	5.3	7.8	12.0
United States	8.0	9.4	9.5

Source: National statistics.

[a] Compensation of employees per unit of real GDP or GNP.

[b] Preliminary figures and secretariat estimates rounded to the nearest 0.5 percentage point.

the United Kingdom and, to a lesser extent, in the Netherlands. This factor is likely to have been important in more countries than are shown in table 1.2.4, given the widespread attempts to reduce public sector deficits and efforts to improve energy conservation with the help of higher taxes on petroleum products and other basic energy supplies.

CONSUMER PRICES

Inflation deteriorated further in 1980 in both western Europe and North America. In western Europe the average quarterly rate increased steadily from 6.5 per cent in the first quarter of 1979 to just under 12 per cent in the second quarter of 1980; there was some improvement in the third quarter but this did not continue into the fourth: energy prices accelerated again in November and December and in some countries (the Federal Republic of Germany and Switzerland, for example) exchange rate changes also had an adverse effect. For the year as a whole the average increase in western Europe in 1980 of 11.4 per cent compares with a peak rate of 12.8 per cent in 1974 and 1975. In the United States the 1980 rate was 13.5 per cent, compared with 11 and 9 per cent in 1974 and 1975 respectively.

The acceleration of inflation between 1979 and 1980 (table 1.2.5) affected all countries and for most of them the rate increased by one-quarter to a half; rather more in Austria and Norway and somewhat less in Switzerland. The acceleration of prices in the first two quarters was also general (Switzerland being the only exception), but in the second half of the year the pattern is more varied: there was further acceleration in the last two quarters in Belgium, Finland, Norway and Sweden and an acceleration in Switzerland in the last quarter. Although the inflation rate was falling in the last quarter for eight of the west European countries, only in three of them (Denmark, the Federal Republic of Germany and the United Kingdom) was the rate of increase below that of the first quarter. In Denmark and the United Kingdom the rate fell sharply between the third and fourth quarters (by more than a fifth and by nearly a third, respectively), but elsewhere the decline was neither very large nor indeed universal.

One reason for this relatively slow fall of inflation rates is that government policies are having an upward effect on consumer prices both as a result of general increases in value added taxes and public utility prices in the context of reducing public borrowing requirements and of specific tax increases in the case of energy products. The rise in the price of "fuel and light" is shown in table 1.2.6: not only has this item made a relatively large contribution to the total rise in prices in 1980 but its contribution has fluctuated much less sharply than it did in the aftermath of the increase in oil prices in 1973. The impact of higher fuel prices clearly falls off in the third quarter but, not in general, very sharply (the exceptions are the Federal Republic of Germany and Switzerland) and in the fourth quarter there is either an increase or a further but marginal fall in its contribution to the over-all increase.

TABLE 1.2.4

Components of the change in "total" prices in 1980

		of which, *due to:* [b]			
Country	*Change in "total" prices* [a] *(per cent)*	*Compensation of employees*	*Gross operating surplus*	*Indirect taxes less subsidies*	*Imports of goods and services*
Austria	5.8	1.4	— 2.0	—	2.4
Finland	11.9	4.1	1.8	0.9	5.1
France	12.7	6.1	— 3.1	—	3.5
Germany, Fed. Rep. of	6.0	2.1	0.9	0.3	2.7
Netherlands	9.6	1.6	1.2	0.7	6.1
Sweden	12.1	5.0	2.3	1.6	3.2
United Kingdom [c]	17.4	9.7	2.1	2.9	2.7

Source: Basic data as for appendix table.

[a] The implicit price deflator of total final expenditure; per cent increase over 1979.

[b] The calculation is based on 1979 weights in total final expenditure. The component contributions refer to the costs of each component per unit of total final expenditure at constant prices.

[c] January-September 1980 over same period in 1979.

TABLE 1.2.5

Annual and quarterly changes in consumer prices, 1978-1980

(Percentage change over corresponding period of previous year)

Country	1978	1979	1980	1979				1980			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Austria	3.6	3.7	6.4	3.6	3.2	3.6	4.4	5.3	6.5	6.9	6.6
Belgium	4.5	4.5	6.7	3.8	4.1	4.8	5.1	6.3	6.4	6.5	7.4
Denmark	10.1	9.6	12.3	6.9	7.8	12.0	11.6	13.3	13.9	11.5	10.8
Finland	7.8	7.5	11.6	7.1	7.2	7.6	8.0	9.3	11.2	12.2	13.5
France	9.1	10.8	13.5	10.2	10.1	10.7	11.5	13.3	13.7	13.6	13.6
Germany, Fed. Rep. of	2.7	4.1	5.5	2.9	3.4	4.8	5.3	5.5	5.9	5.4	5.3
Ireland	7.6	13.2	18.2	10.9	12.4	13.6	16.0	15.5	20.2	18.8	18.2
Italy	12.1	14.8	21.2	12.9	13.6	14.8	17.7	20.6	20.9	21.8	21.5
Netherlands	4.1	4.2	6.5	4.2	4.2	3.8	4.6	5.8	6.5	7.1	6.7
Norway	8.2	4.8	10.9	5.3	5.1	4.1	4.5	8.0	10.1	12.1	13.2
Sweden	10.0	7.2	13.7	5.8	6.1	7.6	9.2	13.2	13.3	13.5	14.7
Switzerland	1.1	3.6	4.0	1.9	3.2	4.4	5.1	4.3	3.9	3.8	4.1
United Kingdom	8.3	13.4	18.0	9.6	10.6	16.0	17.3	19.1	21.6	16.4	15.3
West European average (unweighted)	6.9	7.8	11.4	6.5	7.0	8.3	9.3	10.7	11.8	11.5	11.6
Canada	8.9	9.2	10.1	9.1	9.3	8.7	9.5	9.4	9.6	10.5	11.1
United States	7.7	11.3	13.6	9.8	10.7	11.7	12.7	14.3	14.5	12.9	12.6

Source: National statistics.

TABLE 1.2.6

Changes in the price of fuel and light and their contribution to the total rise in consumer prices

(Percentages)

Country	1980 weight of "fuel and light" in total index	Change over preceding year						Contribution to rise in consumer price index				
				1980					1980			
		1979	1980	Q1	Q2	Q3	Q4	1980[a]	Q1	Q2	Q3	Q4
Austria	5.3	6.7	19.7	18.8	23.4	18.5	18.3	16.7	18.4	18.7	14.5	15.3
Denmark	5.8	39.2	42.5	67.2	60.5	28.6	26.7	24.5	29.7	27.8	19.8	20.4
Finland	3.5	7.5	23.3	20.2	26.4	23.5	23.2	7.0	7.3	8.0	6.7	6.1
France	5.2	17.4	32.8	38.0	36.6	28.7	29.1	15.4	17.2	16.5	13.8	14.2
Germany, Fed. Rep. of	4.9	20.8	10.3	17.3	11.7	4.0	8.7	10.3	16.5	10.8	4.3	9.4
Ireland	5.9	14.3	41.8	39.3	51.1	41.6	36.2	13.6	14.1	14.2	13.5	12.8
Italy	3.0	18.5	51.1	54.1	57.0	56.5	39.6	7.8	8.0	8.2	8.5	6.5
Netherlands	3.9	7.0	17.7	13.3	14.4	21.9	20.9	12.0	10.4	9.9	13.9	14.0
Norway	4.2	11.1	24.0	20.1	23.2	26.2	26.2	9.3	10.4	9.6	9.0	8.4
Sweden	6.2	20.8	31.4	41.8	37.8	24.0	24.9	17.2	21.5	20.0	13.8	13.3
Switzerland	4.0	51.5	4.8	29.8	7.0	−9.0	−2.2	5.9	31.0	9.6	−13.8	−3.1
United Kingdom	5.9	10.1	25.0	19.0	26.3	26.8	27.3	9.3	6.6	7.9	10.8	12.1
Canada	4.0	9.2	12.8	9.9	11.8	12.2	16.8	6.0	5.2	5.9	5.6	7.3
United States	7.0	10.8	16.4	17.8	18.6	16.0	13.6	9.0	9.1	9.4	9.4	8.1

Sources: National statistics. For Italy and Canada, OECD, *Main Economic Indicators*, Paris.

[a] Average of quarterly data.

Similarly, in spite of excess supplies and, in some countries, considerable competition at the retail stage, consumer petrol prices were generally rising faster than total consumer prices throughout most of 1980. The change in the *real* price of petrol in the first nine months of 1980 compared with 1979 as a whole is as follows according to the data so far available (in percentages):

Austria	7.9
Denmark	20.1
France	4.6
Germany, Fed. Rep. of	11.3
Italy	9.6
Netherlands	14.1
Switzerland	4.9
United Kingdom	9.6
United States	24.1

Source: National consumer price indices.

These upward movements will have received further support in several countries in the last quarter as a result of falling exchange rates against the dollar. Primary food prices were also rising throughout most of the year, although there were considerable differences in individual markets: falling prices for tropical beverages, rising for grains, sugar and oilseeds. Primary commodities[23] as a whole rose some 18 per cent in dollar terms, with some acceleration in the last quarter; changes in exchange rates against the dollar will have amplified these increases for most west European countries.

Fears that the second major rise in oil prices at the end of 1978 and the acceleration of food prices at the beginning of 1979 would set off a renewed wage-price spiral of the dimensions of 1974-1975 have not been realized. Nevertheless there is little ground for complacency in regard to the prospects for inflation: in spite of a very different macro-economic environment from that ruling in 1973 and 1974, prices have still accelerated sharply in the past two years. However there are signs at least of a levelling out of price increases at the end of 1980, although significant falls are still confined to two or three countries. Given the strong commitment to policies designed to reduce inflation, and in the face of increasing unemployment, the growth of nominal wages in 1981 is likely to continue to be relatively moderate. A number of recent wage settlements would appear to confirm this with increases implying little or no change in real earnings. However the expected falls in productivity imply that the easing of unit labour cost pressures may not be very great. There is unlikely to be any significant relief to domestic inflation rates from lower commodity prices, although most current projections are for a lower rate of increase than in 1980. Food prices should continue to increase, but by less than in 1980 although the low levels of grain stocks increase the risks attached to another poor harvest. One of the more significant features of primary raw material prices in 1980 was their relative stability (after the shake-out of speculative positions in metals in the opening months of the year) in the face of sharply falling industrial demand and de-stocking by consumers. The reasons for this are still unclear but it may reflect a greater ability of producers to adjust production to changes in demand. This possibility and the fact that, unlike the commodity recession of 1974-1975, consumers' stocks have been reduced to very low levels, partly under the pressure of high interest rates, mean that raw material prices are likely to be maintained at present levels and may increase quickly in response to a recovery of industrial output. However, in spite of these uncertainties (to which, as usual, should be added the prospects for crude oil prices), there should be some deceleration of inflation in 1981: current national forecasts imply a fall in the average rate for the 13 west European countries from 11.4 per cent to around 9.5 per cent. Most of this deceleration is due to countries which have had the higher rates in the past: Denmark, Ireland, Italy and, particularly, the United Kingdom where the annual rate is expected to fall from over 18 to around 12 per cent or even less. In the rest of Europe the change is in general fairly small, mostly but not universally in a downward direction.

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[23] Changes in commodity prices are discussed in more detail below, in section 3.

3. FOREIGN TRADE

(i) Recent regional trade developments

VOLUMES AND PRICES

During the third quarter of 1980 the *trade volumes* of both imports and exports in industrial western Europe continued to fall at approximately the same rate.[24] Import and export volumes had peaked in the fourth quarter of 1979 and in the first quarter of 1980 respectively; they had dropped by 6.4 and 4.3 per cent respectively (seasonally adjusted) by the third quarter of 1980.

Growth rates of foreign trade volume

(*In per cent — at annual rates*)

	1978	*1979*	*1980 I-III relative to same period in 1979*
Western Europe			
Exports	6.0	8.9	3.6
Imports	3.5	10.8	3.6
North America			
Exports	11.0	7.4	9.1
Imports	7.0	—	−6.9

Source: United Nations, *Monthly Bulletin of Statistics*, New York, January 1981 and national statistics.

Import volume has also fallen in North America since the fourth quarter of 1979, but the drop of 13.4 per cent from the peak was more than twice that in industrial western Europe. In contrast, exports continued to grow into the second quarter, and then dropped by 2.2 per cent.

Import volumes have grown more or less in line with industrial production. However, in both western Europe and North America, imports appear to have weakened in anticipation of the economic downturn, and as a corrective response to the high level of stock building which took place during 1979.

Export and import price growth (in terms of US dollars) accelerated in the region in 1978, and again in 1979.[25] Although the first three quarters of 1980 over the corresponding period in 1979 show a further acceleration (except in North American export prices) a closer examination of the trend suggests a slowing of all of these prices in the second and third quarters.

Growth rates of foreign trade prices [a]

(*In per cent, relative to corresponding period in the previous year*)

	1977	*1978*	*1979*	*1980 Q1-Q3*
Western Europe				
Export prices	10	15	15	16
Import prices	10	13	19	22
North America				
Export prices	2	6	15	13
Import prices	7	8	18	28

Source: United Nations, *loc. cit.*

[a] Unit value indices, in terms of US dollars.

The substantial deterioration in the terms of trade of the western market economies since the end of 1978 finally ended as they stabilized in western Europe starting in the first quarter of 1980. However, it took until the third quarter for any improvement to show in North America.

Changes in the terms of trade

(*Per cent*)

	1973-1974	*1979-1980*
Western Europe	−11.3	−7.8 [a]
North America	−9.2	−14.3 [b]

Source: United Nations, *loc. cit.*

[a] Between the fourth quarter 1978 and first quarter 1980.

[b] Between the second quarter 1979 and second quarter 1980.

Much of the 7.8 per cent fall in the terms of trade in western Europe and the 14.3 per cent fall in North America in 1979-1980 can be attributed directly to the 120-140 per cent import price increase of crude oil during the period in question and, to a lesser extent, to non-oil commodity prices. The latter may have increased slightly faster than the export prices in the industrialized market economies. Two factors appear to be responsible for the smaller loss in the terms of trade observed in western Europe. Firstly, the export prices of manufactured goods were rising faster between the first half of 1979 and the first half of 1980 than were those in North America (see above). Secondly, in two of the energy exporting countries in western Europe, Norway and the United Kingdom, there were improvements in the terms of trade (with currency appreciation vis-à-vis the dollar), while in a third, the Netherlands, the terms of trade were more or less unchanged. In North America, the terms of trade development reflected United States trends since those in Canada had been improving (irregularly) since the end of 1978. In western Europe the stability

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[24] Figures for the third quarter of 1980 are provisional.

[25] In terms of domestic currencies, prices in 1978 grew much more slowly since the depreciation of the US dollar accounted for much of the increase in dollar terms. This factor was less important in 1979, while in 1980 and early 1981 the appreciation of the dollar implies that the trade price increases in US dollars understated the rates in terms of domestic currencies.

TABLE 1.3.1

Total trade of west European countries, January-September 1980

Country	*Imports c.i.f. (Billion US dollars)*	*Exports f.o.b. (Billion US dollars)*	*Percentage change in dollar value from January-September 1979*		*Trade balance (Billion US dollars)*	*Change in trade balance from January-September 1979 (Billion US dollars)*
			Imports	*Exports*		
Austria	18.4	13.1	29	19	−5.4	−2.0
Belgium-Luxembourg	54.1	48.6	26	21	−5.4	−2.7
Denmark	14.7	12.3	12	19	−2.5	.5
Finland	11.6	10.3	48	31	−1.3	−1.3
France	100.7	86.3	32	20	−14.5	−10.2
Germany, Federal Republic of [a]	141.8	145.1	25	17	3.3	−6.5
Ireland	8.3	6.3	15	24	−2.0	.2
Italy	72.9	56.8	40	13	−16.1	−14.2
Netherlands	59.1	55.4	20	21	−3.6	−.4
Norway	12.5	13.0	28	38	.5	.8
Sweden	24.5	22.4	25	17	−2.1	−1.7
Switzerland	27.3	21.9	30	15	−5.4	−3.5
United Kingdom	91.5	85.0	25	31	−6.5	1.9
Total industrial Europe	637.4	576.4	27	21	−61.0	−39.3
Greece	7.3	3.6	9	36	−3.7	0.4
Portugal	6.8	3.4	43	35	−3.3	−1.1
Spain	25.0	14.5	41	13	−10.4	−5.6
Turkey	4.3	1.8	12	0	−2.5	−.5
Yugoslavia	11.1	6.3	19	38	−4.8	—
Southern Europe	54.4	29.6	29	21	−24.8	−6.4
Canada	45.7	48.9	10	18	3.2	3.4
United States	189.2	162.6	20	25	−26.6	1.0
North America	234.9	211.5	18	23	−23.4	4.5
Japan	104.7	92.9	34	25	−11.8	−8.2

Sources: IMF, *Direction of Trade*, Washington, August 1980, November 1980, February 1981; OECD, *Statistics of Foreign Trade*, Series A, Paris, January 1981; and national statistics.

[a] Excluding trade with the German Democratic Republic.

in the terms of trade in the first three quarters of 1980 was the net result of a variety of trends in the individual countries, in most of which the terms of trade started to improve only in the third quarter.

The substantial deterioration in the *trade balance* [26] which industrial western Europe experienced in 1979 continued into 1980. In the first nine months the trade deficit was $61 billion compared with $21.7 billion in the same period of 1979. All of the deterioration was due to worsening in the terms of trade. In North America, on the other hand, the improvement was due entirely to changes in trade volumes until the third quarter, when a small improvement in the terms of trade also contributed. The changes observed on a regional basis are, in general, a fairly accurate reflection of the experience of individual countries (table 1.3.1).

Crude trade balances [a]

(*In billions of US dollars*)

	1978	*1979*	
Industrial western Europe	−4.4	−36.0	
North America	−37.7	−35.7	
	1978 I-III	*1979 I-III*	*1980 I-III*
Industrial western Europe	−4.3	−21.7	−61.0
North America	−30.4	−27.9	−23.4

Source: National sources, not seasonally adjusted.

[a] Exports, *f.o.b.* less imports, *c.i.f.*

COUNTRY DEVELOPMENTS

The 1980 trends in trade volumes (table 1.3.2) in the individual west European countries were generally determined by demand factors, although past changes in effective exchange rates continued to have an influence. In most countries in 1979 growing exports were offset by rising imports (an unusually large portion of which were going into stocks) responding to the upswing in economic growth. In the mean time the terms of trade were falling, leading to increasing trade deficits. This situation continued into the first quarter of 1980 (with some inter-country differences) after which industrial production dropped off sharply and the ratio of export to import volumes began to improve in some countries. However, the terms of trade continued to deteriorate through the first half until a reversal occurred in the third quarter.

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[26] The trade balance, as it is used here, is the crude trade balance: exports, *f.o.b.* less imports, *c.i.f.*

TABLE 1.3.2

Development of international trade and industrial production, by country

(Indices: 1975 = 100)

	1978				1979				1980		
	Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
AUSTRIA											
Volume:											
Industrial production [a]	110	113	113	114	115	118	123	123	124	126	124
Imports [b]	123	134	130	145	135	143	146	163	158	161	157
Exports [b]	123	133	126	143	137	148	149	161	152	154	154
Ratio of exports and imports	100	99	97	99	101	103	102	99	96	96	98
Prices											
Exports [c]	118	119	125	132	130	131	141	150	148	149	156
Imports [c]	126	123	128	134	140	139	151	156	163	170	169
Terms of trade [d]	94	97	98	99	93	94	93	96	91	88	92
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.8	−0.8	−0.8	−0.9	−0.9	−0.9	−1.1	−1.2	−1.6	−1.7	−1.5
BELGIUM-LUXEMBOURG											
Volumes											
Industrial production [a]	109	109	112	116	112	118	118	117	121	118	114
Imports [b]	124	122	113	131	129	133	115	135	143	130	116
Exports [b]	124	124	114	132	131	135	117	136	141	135	117
Ratio of exports and imports	100	102	101	101	102	102	102	101	99	104	101
Prices											
Exports [c]	117	122	123	143	140	141	156	165	171	173	172
Imports [c]	118	122	125	151	141	143	162	171	179	181	184
Terms of trade [d]	99	100	98	95	99	99	96	96	96	96	93
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.4	−0.3	−0.9	−0.1	−0.2	−0.3	−0.2	−0.6	−1.2	−0.5	−1.0
DENMARK											
Volumes											
Industrial production [a]	..	..	..	..	..	..	..	..	..	..	..
Imports [b]	116	118	111	129	127	128	122	133	135	115	104
Exports [b]	107	120	107	123	124	129	120	133	142	132	123
Ratio of exports and imports	92	102	96	95	98	101	98	100	105	115	118
Prices											
Exports [c]	116	115	120	127	128	119	132	150	137	141	148
Imports [c]	117	116	122	127	129	131	144	153	156	160	166
Terms of trade [d]	99	99	98	100	99	91	92	98	88	88	89
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.6	−0.4	−0.5	−0.6	−0.6	−0.6	−0.8	−0.8	−0.8	−0.4	−0.3
FINLAND											
Volumes											
Industrial production [a]	108	108	109	113	116	119	121	119	122	127	131
Imports [b]	78	83	79	93	90	94	100	113	105	106	120
Exports [b]	124	136	129	160	140	154	138	171	166	158	160
Ratio of exports and imports	159	164	163	172	156	164	138	151	158	149	133
Prices											
Exports [c]	111	109	114	119	127	129	141	142	149	155	161
Imports [c]	122	119	126	129	134	141	157	164	178	184	188
Terms of trade [d]	91	92	90	92	95	91	90	87	84	84	86
Trade Balances [e] (*f.o.b.-f.o.b.*)	0.2	0.3	0.2	0.5	0.3	0.3	−0.1	0.0	0.0	−0.1	−0.5
FRANCE											
Volumes											
Industrial production [a]	110	114	112	116	114	115	121	119	119	116	117
Imports [b]	128	131	116	137	144	145	134	153	158	156	139
Exports [b]	123	129	111	131	132	140	125	146	143	145	124
Ratio of exports and imports	96	98	96	96	92	97	93	95	91	93	89
Prices											
Exports [c]	113	119	124	128	134	134	141	149	154	157	158
Imports [c]	114	115	119	124	127	131	142	150	164	162	169
Terms of trade [d]	99	103	104	103	106	102	99	99	94	97	93
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.5	0.7	0.2	0.1	−0.3	0.0	0.0	−1.1	−4.4	−2.8	−4.5

TABLE 1.3.2 (*continued*)

	1978				1979				1980		
	Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
					GERMANY, FEDERAL REPUBLIC OF						
Volumes											
Industrial production [a]	111	111	114	115	115	119	120	121	122	121	117
Imports [b]	122	130	122	137	136	138	135	148	146	144	136
Exports [b]	117	124	117	131	126	132	127	139	141	138	129
Ratio of exports and imports	96	95	96	96	93	96	94	94	97	96	95
Prices											
Exports [c]	123	124	129	139	141	140	147	154	158	156	161
Imports [c]	124	122	128	135	141	146	159	166	177	176	180
Terms of trade [d]	99	102	101	103	100	96	92	93	89	89	89
Trade Balances [e] (*f.o.b.-f.o.b.*)	5.4	5.9	5.7	7.6	5.4	5.0	3.2	3.8	2.9	2.3	2.3
					IRELAND						
Volumes											
Industrial production [a]	127	129	127	132	135	138	138	140	141	139	132
Imports [b]	143	162	155	154	171	185	167	168	182	158	153
Exports [b]	127	136	138	147	130	142	155	165	151	153	161
Ratio of exports and imports	89	84	89	95	76	77	93	98	83	97	105
Prices											
Exports [c]	126	124	133	138	145	148	156	160	166	170	178
Imports [c]	120	118	121	131	138	144	160	163	173	179	186
Terms of trade [d]	105	105	110	105	105	103	98	98	96	95	96
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.3	−0.4	−0.2	−0.2	−0.6	−0.7	−0.5	−0.4	−0.8	−0.5	−0.3
					ITALY						
Volumes											
Industrial production [a]	115	114	114	121	123	119	121	131	136	132	122
Imports [b]	102	121	112	163	131	139	124	170	140	140	143
Exports [b]	108	136	120	174	133	144	136	165	130	134	123
Ratio of exports and imports	106	112	107	107	102	104	110	97	93	96	86
Prices											
Exports [c]	115	115	122	125	132	138	148	154	163	159	173
Imports [c]	115	115	119	121	128	135	150	160	172	181	185
Terms of trade [d]	100	100	103	103	103	102	99	96	95	88	94
Trade Balances [e] (*f.o.b.-f.o.b.*)	0.3	1.2	0.8	1.2	0.3	0.5	1.0	−2.1	−3.0	−3.0	−5.2
					NETHERLANDS						
Volumes											
Industrial production [a]	107	106	108	111	111	113	113	112	116	113	108
Imports [b, f]	117	121	115	129	124	129	123	138	132	127	119
Exports [b, f]	114	114	107	118	124	124	116	128	134	123	114
Ratio of exports and imports	97	94	93	91	100	96	94	93	102	97	96
Prices											
Exports [c, f]	123	123	126	133	138	141	152	159	168	170	174
Imports [c, f]	124	121	127	129	140	142	155	160	175	175	175
Terms of trade [d]	99	102	99	103	99	99	98	99	96	97	99
Trade Balances [e] (*f.o.b.-f.o.b.*)	0.1	−0.2	−0.4	−0.5	0.3	−0.1	−0.5	−0.8	0.7	−0.1	−0.7
					NORWAY						
Volumes											
Industrial production [a]	97	98	99	100	99	102	106	102	102	106	104
Imports [b, f]	111	114	92	110	106	110	102	128	130	121	113
Exports [b, f]	120	162	122	147	138	147	139	155	167	158	132
Ratio of exports and imports	108	142	133	134	130	134	136	121	128	130	117
Prices											
Exports [c, f]	98	105	101	97	122	115	131	146	149	158	166
Imports [c, f]	108	111	106	117	117	121	140	130	135	143	146
Terms of trade [d]	91	95	95	83	104	95	94	112	110	110	114
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.5	0.3	0.1	−0.2	0.1	0.0	0.2	−0.1	0.6	0.4	0.1

TABLE 1.3.2 (*concluded*)

	1978				1979				1980		
	Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
					SWEDEN						
Volumes											
Industrial production [a]	92	90	92	94	96	99	101	102	103	96	102
Imports [b]	82	83	83	103	97	103	99	118	111	96	..
Exports [b]	104	112	93	119	109	116	107	134	121	101	..
Ratio of exports and imports	120	135	112	115	112	113	108	114	109	105	..
Prices											
Exports [c]	109	113	118	129	128	134	136	145	154	159	..
Imports [c]	126	129	125	138	136	144	155	169	171	176	..
Terms of trade [d]	87	88	94	93	94	93	88	86	90	90	..
Trade Balances [e] (*f.o.b.-f.o.b.*)	0.5	1.0	0.4	0.8	0.6	0.6	−0.2	0.0	0.0	−0.2	−0.4
					SWITZERLAND						
Volumes											
Industrial production [a]	106	108	105	107	108	107	110	112	117	115	115
Imports [b]	131	142	134	145	142	153	146	158	161	149	148
Exports [b]	124	134	125	138	128	134	128	143	135	137	128
Ratio of exports and imports	95	94	93	95	90	88	88	91	84	92	86
Prices											
Exports [c]	130	131	146	152	149	148	154	163	170	166	171
Imports [c]	125	124	133	137	142	134	153	160	175	181	183
Terms of trade [d]	104	106	110	111	105	110	101	102	97	92	93
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.1	0.0	0.2	0.4	−0.3	−0.2	−0.8	−0.6	−1.7	−1.3	−1.6
					UNITED KINGDOM						
Volumes											
Industrial production [a]	109	111	112	111	113	118	115	115	112	108	105
Imports [b]	115	121	113	118	122	133	125	134	133	129	116
Exports [b]	120	128	118	126	112	134	123	135	134	128	122
Ratio of exports and imports	104	106	104	107	92	101	98	101	101	99	105
Prices											
Exports [c]	126	124	133	141	147	154	173	173	192	197	209
Imports [c]	121	118	127	132	132	140	156	163	178	176	183
Terms of trade [d]	104	105	105	107	111	110	111	106	108	112	114
Trade Balances [e] (*f.o.b.-f.o.b.*)	−0.9	−0.6	−0.7	0.1	−1.0	0.0	0.0	0.5	0.0	−0.1	2.7
					CANADA						
Volumes											
Industrial production [a]	110	111	113	116	117	117	119	118	117	114	114
Imports [b]	100	125	103	119	123	131	119	124	119	124	105
Exports [b]	122	145	126	143	136	138	131	140	133	136	124
Ratio of exports and imports	122	116	122	120	111	105	110	113	112	110	118
Prices											
Exports [c]	105	102	104	110	112	120	128	141	146	144	149
Imports [c]	113	113	116	118	119	122	130	124	140	144	150
Terms of trade [d]	93	90	90	93	94	98	98	114	104	100	99
Trade Balances [e] (*f.o.b.-f.o.b.*)	1.0	0.5	1.0	0.7	0.3	0.4	1.0	1.3	1.7	1.0	1.9
					UNITED STATES						
Volumes											
Industrial production [a]	122	125	128	131	132	132	132	132	131	124	121
Imports [b]	143	149	147	151	146	153	148	152	148	140	128
Exports [b]	103	121	112	124	119	124	121	137	137	145	131
Ratio of exports and imports	72	81	76	82	82	81	82	90	93	104	102
Prices											
Exports [c]	112	114	117	121	129	133	137	140	144	145	150
Imports [c]	118	121	122	125	129	136	146	158	173	180	183
Terms of trade [d]	95	94	96	97	100	98	94	89	83	81	82
Trade Balances [e] (*f.o.b.-f.o.b.*)	−9.6	−6.1	−7.9	−4.8	−4.3	−5.7	−8.4	−6.1	−8.8	−4.2	−4.3

Sources: IMF, *International Financial Statistics*, Washington, February 1981; IMF, *Direction of Trade*, Washington, January 1981; OECD, *Main Economic Indicators*, Paris, February 1981; OECD, *Statistics of Foreign Trade, Series A*, Paris, February 1981; and national sources.

[a] Seasonally adjusted. [b] Not seasonally adjusted. [c] Unit values in terms of US dollars; derived by dividing value indices by volume indices.

[d] Index of the ratio of export and import prices. [e] Trade balances are in billions of US dollars, not seasonally adjusted. [f] Norway, excluding ships.

Table 1.3.3

Western Europe's trade by area of origin and destination, January-September 1980

Country or area of origin for imports and destination for exports	*Imports c.i.f. (Billion US dollars)*	*Exports f.o.b. (Billion US dollars)*	*Percentage change in dollar value from January-September 1979*		*Trade balance (Billion US dollars)*	*Change in trade January-September 1979 (Billion US dollars)*
			Imports	*Exports*		
Industrial western Europe	372.1	373.4	21	22	1.3	2.3
Rest of the world:						
Southern Europe	17.8	24.5	22	13	6.7	−0.4
North America	59.3	35.0	39	9	−24.3	−13.9
Soviet Union	15.4	10.4	39	28	−5.0	−2.0
Eastern Europe [a]	11.5	11.6	24	9	0.2	−1.3
Japan	15.5	5.8	33	−1	−9.7	−3.9
Australia, New Zealand and South Africa	9.8	9.7	19	23	−0.1	0.2
China	2.1	2.1	55	−17	−0.1	−1.2
Non-oil developing countries	54.3	51.3	29	17	−3.0	−4.9
Oil exporting countries [b]	74.7	41.0	57	35	−33.7	−16.4
World (including unspecified)	637.4	576.4	27	21	−61.0	−39.3

Sources: IMF, *Direction of Trade*, Washington, August 1980, November 1980, February 1981; and national statistics.

[a] Excluding trade between the Federal Republic of Germany and the German Democratic Republic.

[b] Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, Venezuela.

Although neither the ratio of export to import volumes, nor the terms of trade, have developed in a regular and continuous manner, it appears that both have improved recently (i.e. during the third quarter of 1980 or earlier) in Austria, Canada, Ireland, the United Kingdom and the United States. In the United Kingdom, improvement in both measures has occurred for a longer period, particularly in the case of the terms of trade. In Denmark, the ratio of export to import volumes has been improving since the third quarter of 1979, but it was only in the second and third quarters of 1980 after the terms of trade had stabilized that the trade balance began to improve. On the other hand, in Switzerland, the ratio of export and import volumes has remained roughly constant while the terms of trade deteriorated resulting in a larger trade deficit. Trade balances also deteriorated in Finland, the Netherlands and Norway as the improvements in the terms of trade were not large enough to offset the decline in the ratio of export and import volumes. The ratio of export and import volumes also declined in France and the Federal Republic of Germany, while the terms of trade fell in the former and remained constant in the latter, but in both cases the net result was a deterioration in the trade balance.

With the exception of Ireland, it appears that after the first half of 1980 no industrial western economy received a stimulus to demand in the form of export growth. In a number of countries, export volume had already declined in the first half of the year or earlier. Those countries in which the ratio of export to import volumes has been improving have experienced declines in the volume of imports greater than the decline in exports.

TRADE DEVELOPMENTS VIS-A-VIS MAJOR AREAS

The development of industrial western Europe's and North America's trade balances with their main trade partners is given in tables 1.3.3 and 1.3.4. The most significant changes in both regions, as would be expected, were their increasing deficits vis-à-vis the oil exporting countries.

Industrial western Europe's chronic trade deficit with Japan began to widen noticeably in the second half of 1979 and increased further in 1980. On an annual basis, the deficit in the first three quarters of 1980 was about $13 billion, which is $4.7 billion more than in 1979 and more than double the $5.4 billion deficit of 1976. It is this most recent rapid deterioration in western Europe's position (due partially to its recent higher real effective exchange rate vis-à-vis Japan), that has led to the intensification of bilateral trade talks between the EEC and Japan. Although North America has generally been in deficit with Japan, the gap has not widened in a regular fashion. For example it decreased from about $13 billion in 1978 to $9 billion in 1979, but has since increased to about $10.7 billion in the first three quarters of 1980 (annual rate).

Although industrial western Europe has long had a deficit with North America, the significant widening of the gap in 1979 to $15.7 billion, and in 1980 to $32.4 billion (annual basis), can be partially attributed to differences in the phase of the business cycle in the two regions and high commodity prices, but also to the lagged effects of the decline in North America's real effective exchange rate.

Industrial western Europe was in deficit with eastern Europe and the Soviet Union combined for the first time in 1979 ($3.4 billion): its deficit with the Soviet Union rose as a result of price increases for raw materials (mostly crude oil) while its surplus with the east European countries diminished. These trends continued into 1980, but the additional feature was the slowdown in the growth of export volume to eastern Europe. North American exports to the Soviet Union diminished significantly, fol-

TABLE 1.3.4

North America's trade by area of origin and destination, January-September 1980

Country or area of origin for imports and destination for exports	Imports c.i.f. (Billion US dollars)	Exports f.o.b. (Billion US dollars)	Percentage change in dollar value from January-September 1979		Trade balance (Billion US dollars)	Change in trade balance from January-September 1979 (Billion US dollars)
			Imports	Exports		
North America	61.5	56.0	7	8	−5.5	0.2
Rest of the world:						
Industrial western Europe	39.4	53.2	14	35	13.8	8.9
Southern Europe	2.2	5.2	2	29	3.1	1.1
Soviet Union	0.4	1.7	−28	−41	1.3	−1.0
Eastern Europe	1.0	2.1	1	37	1.1	0.6
Japan	26.3	18.3	17	18	−8.0	−1.1
Australia, New Zealand and South Africa . . .	5.7	5.6	16	29	−0.1	0.5
China	0.9	3.2	68	111	2.2	1.3
Non-oil developing countries	50.9	48.1	24	37	−2.8	3.0
Oil exporting countries [a]	44.2	13.6	35	18	−30.6	−9.3
World (including unspecified)	234.9	211.5	18	23	−23.4	4.5

Sources: IMF, *Direction of Trade*, Washington, August 1980, November 1980 and February 1981; and national statistics.

[a] Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, Venezuela.

lowing the partial trade embargo imposed by the United States, but imports decreased also and a trade surplus was maintained.[27]

One notable trade development in 1980 was the turnabout in industrial western Europe's trade balance with China. Although trade turnover has been fairly small, it had grown rapidly from $2.2 billion in 1977 to $5.4 billion in 1979, while the trade balance developed in favour of industrial western Europe rising from roughly zero in 1977 to $0.9 billion in 1978 and to $1.2 billion in 1979. North American exports to China, led by commodities, increased rapidly in the first three quarters of 1980, by 111 per cent, and its trade surplus improved further to $2.9 billion (annual rate).

The 3.6 per cent growth of industrial western Europe's exports between the first nine months of 1979 and the same period in 1980 was due mainly to the increase in intra-regional trade, in exports to OPEC (see below), to a lesser extent to growing exports to the Soviet Union and to Australia, and perhaps a small increase in those to the non-oil developing countries.[28] Otherwise export volumes to all other destinations fell. On the other hand, import volumes increased from all areas of origin, with the exception of OPEC. North American export volume rose to all destinations in the first nine months of 1980 relative to the same period in 1979 with the exception of intra-trade and the sharp drop in exports to the Soviet Union. The fall of 6.9 per cent in the volume of imports is reflected in import reductions from all areas of origin with the exception of strong increases from the non-oil developing countries, Japan and China.

Given the recent petroleum price increases and their subsequent deflationary impact on the oil importing countries, along with generally weakening internal demand in 1980 in the industrial market economies, OPEC has been looked upon as one of the few potentially dynamic export markets.[29] Nevertheless, it was felt unlikely that an export boom of the magnitude following the first oil price rise would materialize. In fact the volume of industrial market economy exports to OPEC did increase at the rather buoyant rate of over 18 per cent in the first three quarters of 1980 relative to the same period in 1979 (table 1.3.5). Japan led the way, with an increase of about 42 per cent, followed by industrial western Europe[30] (16 per cent) and North America (7.5 per cent). However, these figures exaggerate the growth since the end of 1979. The volume of OPEC imports in the first three quarters of 1979 was below 1978 levels, but a strong recovery took place during the year, particularly in the fourth quarter, as rising oil prices provided OPEC with additional income. Consequently, it appears that, on average, export volumes to OPEC during 1980 were about the same (perhaps slightly higher) as in the fourth quarter of 1979, although seasonal factors may affect the comparison. In conclusion, it seems at this point that most of the burst in OPEC demand spent itself during 1979.

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[27] Recent trade developments between the centrally planned and market economies of the ECE region are treated in more detail in chapter 3, section 6.

[28] This rather qualitative discussion is based upon the changes in trade value in tables 1.3.3 and 1.3.4, which were deflated by the appropriate price indices to get estimates of volume flows.

[29] Exports to OPEC have been addressed recently in more detail in the *Economic Bulletin for Europe*, Vol. 32, No. 1, and the *Economic Survey of Europe in 1979*. The figures presented here cover the period in 1980 up to the start of the war between Iraq and Iran. Together these two countries represented a market of around $20 billion per year, but this figure has probably been reduced following the closing of several ports and the general difficulty of maintaining normal trading conditions.

[30] See footnote in table 1.3.5 for coverage of countries.

Table 1.3.5

Recent develoments in market economy export volume to OPEC [a]

	Exports to OPEC as a percentage of total exports: 1979	*Exports: 1980 Q1-Q3—Percentage change over same period in 1979*		*Contribution of exports to OPEC to total exports [b] (Percentage points)*
		To OPEC	*Total*	
Austria	4.0	40	6.0	1.6
Belgium-Luxembourg	4.1	..	3.4	..
Denmark	3.9	22	6.4	0.9
Finland	3.6	44	12.0	1.6
France	7.8	22	3.8	1.7
Germany, Federal Republic of	6.1	10	6.0	0.6
Ireland	3.7	28	8.9	1.0
Italy	10.7	10	−6.3	1.0
Netherlands	4.6	23	1.9	1.1
Norway	1.9	..	7.8	..
Sweden	5.0	..	..	..
Switzerland	6.4	12	2.3	0.8
United Kingdom	8.0	18	4.1	1.5
Industrial western Europe [c]	6.9	16	3.6	1.1
Canada	2.4	14	−3.0	0.3
United States	8.3	6	13.5	0.5
North America	6.8	7	9.1	0.5
Japan	13.1	42	18.8	5.4
Industrial western Europe [c] plus North America	6.9	13	5.2	0.9
Industrial western Europe [c] plus North America plus Japan	7.6	18	6.7	1.4

Sources: IMF, *International Financial Statistics* and *Direction of Trade.*

Note: Export values in US dollars of each country were deflated by the respective export unit value index (also in terms of US dollars).

[a] Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Quatar, Saudi Arabia, United Arab Emirates, Venezuela.

[b] Export to OPEC growth rate times exports to OPEC as a percentage of total exports.

[c] Excluding Belgium-Luxembourg, Norway and Sweden.

This is reflected, to a certain extent, in the growth rates of exports in the first three quarters of 1980 (relative to the same period in 1979) when exports to OPEC contributed a major portion of total export growth in most European economies (table 1.3.5). In some countries (e.g. Italy) they were about the only source of growing export demand.

Current account balances

In 1980, western Europe and North America combined registered a surplus in the invisibles balance estimated at about $7.5 billion, down from $9.6 billion in 1979, although there were very large inter-country differences.[31] However, within the region, it was the surplus in the United States, estimated at about $31 billion, which more than offset the combined deficits of western Europe ($14.5 billion) and Canada ($9 billion).

The industrialized countries maintained a surplus on invisibles with the non-oil developing countries which made large and increasing net payments of investment income, mainly in the form of interest payments on loans, while the growth of returns on direct foreign investment (including reinvested earnings) played a smaller role.[32]

The surplus on the balance of services and private transfers vis-à-vis OPEC continued to grow in 1980 to about $42 billion and is expected to make a further substantial increase in 1981.[33] Possibly one third of this deficit was for shipping and transport services.

The most striking development in the current account balances in the region since the beginning of the oil price rise in 1979 has been its deterioration in western Europe by $75 billion to an annual deficit of about $61 billion. In contrast the current balance in North America improved by $20 billion (due mostly to the United States) over the same period as differences in regional cyclical economic activity and in competitive position worked in its favour to offset the higher oil import bill (table 1.3.6).

A large part of the current deficit in industrial western Europe was attributable to the Federal Republic of Germany ($15.5 billion), but this represented only 1.9 per cent of GDP. The current deficit was also relatively small for some of the other larger countries (France

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[31] OECD, *Economic Outlook*, Paris, December 1980, p. 124.

[32] GATT, *International Trade 1979/80*, Geneva, 1980, p. 11.

[33] OECD, *loc. cit.*, p. 125, table 58.

TABLE 1.3.6

Current balance of payments
(Billion US dollars)

	1978		*1979*		*1980*
Country	*Including government transfers*	*Excluding government transfers*	*Including government transfers*	*Excluding government transfers*	*Including govrenment transfers*
Austria	−1.4	−1.4	−1.8	−1.7	−3.6
Belgium-Luxembourg	−0.9	−0.5	−3.4	−2.9	−6.0
Denmark	−1.5	−2.1	−3.0	−3.3	−2.5
Finland	0.6	0.7	−0.3	−0.2	−1.7
France	3.8	5.2	1.5	3.2	−7.8
Germany, Fed. Rep. of	8.7	13.0	−6.3	−0.4	−15.5
Ireland	−0.3	−1.0	−1.5	−2.4	−1.2
Italy	6.4	9.2	5.1	8.0	−9.5
Netherlands	−1.4	−0.9	−2.4	−2.2	−2.4
Norway	−2.1	−1.7	−1.2	−0.8	0.9
Sweden	−0.3	0.8	−2.6	−1.7	−4.9
Switzerland	4.4	4.8	2.4	2.8	−0.6
United Kingdom	1.2	4.5	−3.8	0.6	5.3
Industrial western Europe	17.2	30.5	−17.3	−1.0	−49.5
Greece	−1.3	−1.3	−1.5	−1.5	−1.4
Portugal	−0.8	−0.8	—	—	−0.9
Spain	1.6	1.6	1.2	1.2	−5.1
Turkey	−1.4	−1.4	−1.2	−1.2	−2.1
Yugoslavia	−1.0	−1.0	−3.7	−3.7	−2.0
Southern Europe	−2.9	−2.9	−5.3	−5.3	−11.5
Western Europe	14.4	27.6	−22.6	−6.3	−61.0
Canada	−4.4	−4.2	−4.3	−4.5	−1.6
United States	−14.2	−9.5	−0.6	4.5	3.4
North America	−18.6	−13.7	−5.0	—	1.8
Japan	17.6	18.0	−8.7	−7.9	−10.8

Sources: Secretariat estimates; IMF, *International Financial Statistics*, February 1981; OECD, *Main Economic Indicators*.

Note: Discrepancies are due to rounding.

1.2 per cent of GDP, Netherlands 1.5 per cent and Italy 2.4 per cent), while the United Kingdom was in surplus by 1 per cent of GDP. In contrast, the deficits of some of the smaller west European countries were large in absolute terms, but even more so as in relative terms: in Denmark and Finland, the current deficits were over 3 per cent of GDP, in Austria and Sweden 4 per cent and over, 5 per cent in Belgium and 7 per cent in Ireland.[34] Some of these countries were already in deficit in 1978 (before the oil price rise) when western Europe as a whole recorded a substantial surplus. However, in a majority of the European countries, the 1980 deficits as a percentage of GDP are lower than those experienced after 1973. Belgium, the Federal Republic of Germany and the Netherlands then had surpluses which they managed to maintain for several years, but all three subsequently experienced a progressive deterioration in their current accounts.

Estimates of current account balances in 1981 are sensitive to assumptions about changes in the real price of oil. One recent projection shows a decrease in the west European current account deficit from an estimated $60 billion in 1980 to about $47 billion in 1981. Comparable figures for North America are surpluses of $2 billion and $17 billion respectively.[35]

CURRENT ACCOUNT FINANCING

The large current account deficits experienced by the industrialized market economies in 1980 appeared to have been financed without excessive difficulty. Prospects appear relatively favourable for further financing through normal commercial channels, even for some of the smaller economies with relatively large deficits looming in 1981.

Financing has been facilitated by a number of factors. Firstly, large amounts of recycled funds have been made available on the international financial markets. High interest rates, along with what appears to be a positive evaluation by surplus countries of the financial positions of the industrialized economies in deficit, have been helpful.[36] As a group the latter countries have benefited from the rise in the price of gold bullion in international markets and this had led to a substantial upward re-evaluation in many countries of both official gold and global reserves. For example, between the end of December 1978 and the end of June 1980, the global reserves of the European Economic Community increased from 139 to 223 billion ecus (60 per cent increase) which raised the ratio of reserves to annual imports from 42 to 50 per cent.[37] Countries which particularly benefited from this revaluation, because of the larger initial weight of gold in their global reserves, were France (+102 per cent increase in global reserves), Belgium (+94 per cent), Netherlands (+88 per cent) and Italy (+81 per cent). In the United Kingdom both the enhanced value of its oil reserves and its positive real rate of interest played a role in attracting funds, while the latter was an important factor in the United States.

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[34] The current account deficits of the countries of southern Europe ranged between 1 and 4 per cent of GDP. See chapter 2, section 2.

[35] OECD, *Economic Outlook*, Paris, December 1980. Real oil prices were assumed to remain constant in 1981 (that is the price of oil was assumed to increase at the same rate as the projected 7 per cent rise in the export price of manufactures); the prices of non-oil commodities were assumed to increase by 4 per cent.

Secondly, the international distribution of current account deficits has been viewed as relatively favourable since the Federal Republic of Germany and Japan, two countries with strong economies and abundant reserves, have accounted for a large part of the western deficit. This is in contrast to the pattern experienced after the first oil price shock when much of the burden of the resulting deficits was borne by countries in a weakened financial position (France, Italy, the United Kingdom). At that time, the Federal Republic of Germany, the United States and the Netherlands were recording substantial surpluses on the current account. On the other hand, many of the smaller countries which are experiencing large deficits now also recorded them after 1973—Canada, Ireland, Denmark, Sweden, Finland, Austria, Spain, Portugal, Greece and Turkey. In 1981 the pattern of deficits may shift to the detriment of many of the smaller countries in the region. As the United States recorded a current account surplus in 1980, and expects another in 1981, it has not shared the burden of the western deficit.

In contrast to the pattern of the recycling of funds following the first round of oil price increases in 1973-1974, there has been a recent tendency towards closer and more direct financial co-operation between western deficit countries and OPEC with a rise in non-dollar denominated foreign loans.[38]

(ii) Trade prices

The most significant change in trade prices during the past year has been the 35 per cent increase in crude oil prices [39] that has followed the 100 per cent rise in 1979. Non-oil commodity prices were on average 18 per cent higher in 1980. In contrast to recent years, however, the depreciation of the US dollar against many currencies stopped in 1980, and appreciated strongly towards the end of 1980 and into 1981. Consequently, those countries with depreciating currencies found their import prices of dollar denominated goods to be increasing faster in terms of their domestic currencies. In previous years commodity price increases have been partially offset in industrial western Europe by appreciating exchange rates.

NON-OIL COMMODITY PRICES

The average price of commodities in 1980 was 18 per cent above the average level in 1979.[40] Prices peaked in November and, with the exception of a temporary recovery in January 1981, then tended to decline. Much of the movement in the index in early 1980 is attributable to a short-lived speculative mini-boom in metals and natural rubber. For the remainder of the year, it was food prices, mainly those of sugar and, to a lesser extent, those of grain and soya, that determined the upward trend of the all-item index.

The Economist Commodity Price Indices

(1975 = 100, in terms of US dollars)

	1979 Average	*1980 Average*	*1980*				*3 February 1981*
			Q1	*Q2*	*Q3*	*Q4*	
All items	182	214	208	208	218	223	204
Food	188	232	215	227	239	247	222
Industrial materials . .	171	184	197	174	182	181	173
Fibres	149	172	170	166	174	176	175
Metals	166	176	197	168	172	164	151

Source: The Economist, London, 10 January 1981, p. 66, and 7 February 1981.

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[36] For an analysis of the effect of high interest rates on demand, see the following section.

[37] Commission of the European Communities, *Annual Economic Review 1980-1981*, COM (80) 596/2, 15 October 1980, Table 3.4. Gold is valued as in the European Monetary System (EMS) namely, at the average market price of the six preceding months.

[38] The syndicated Eurocredit market has continued to play a role, particularly for certain countries such as Italy and Spain, but nevertheless its activity for this purpose has been reduced relative to the post-1973 period. Similarly, there has been less reliance on official institutions, in particular the IMF, by the industrialized western economies. Although information on direct financial co-operation between western governments and OPEC is scanty at this point, one example is the recent Federal Republic's Finance Ministry announcement that, over-all, the Federal Republic of Germany had borrowed DM 20.6 billion abroad, of which DM 12 billion was directly or indirectly from OPEC. Of this amount, about DM 5.5 billion ($2.7 billion) had come directly from Saudi Arabia through the purchase of promissory notes and it was indicated that a similar level of borrowing from the same source could take place in 1981. Not all countries have pursued this option—for example, the Government of the Netherlands has decided against the direct placement of state loans abroad.

[39] Average crude oil price following OPEC meeting in December 1980 relative to December 1979.

[40] The greater volume of most commodities is sold through contracts and not through the spot market. Nevertheless contract prices react to changes in spot market prices.

In spite of the strong deceleration in economic activity in most market economies during the first half of 1980 or earlier, and taking account of the progressively gloomier prospects as the year went on, industrial material prices did not decline as anticipated. On the contrary, their average level in 1980 was 7.4 per cent above the 1979 average. Nevertheless, the developing economic picture gave rise to a reduction of stocks in 1980 from the high levels built up in 1979, and thus to reduced imports.[41]

The sharp drop in commodity prices towards the end of 1980 has been attributed to sales by speculators in response to the attractive investment opportunities provided by rising interest rates, particularly in the United States and, perhaps to a lesser extent, to the strengthening of the dollar. Rather surprisingly the switching of assets drove down the prices of a range of commodities for which the underlying market conditions varied significantly. The most interesting examples were the sugar and grain markets in which the demand-supply situation by itself would have suggested steady or increasing prices. Consumers of industrial materials also reacted to higher interest rates by cutting inventory costs through the reduction of stocks, in some cases to very low levels. Consequently, a further reduction in commodity imports to offset de-stocking is unlikely.

The six-year high price of *sugar* attained in November (before succumbing to the speculative sell-off) was the main impetus behind the all-time high reached by the *food* index. Several leading sugar exporting countries experienced crop setbacks which were aggravated by a fall elsewhere in the sugar-beet crop. Only a small improvement in output is projected for 1980-1981, de-stocking is expected to continue to very low levels, and consequently a strong upward pressure on prices is expected at least to the fourth quarter of 1981 when the first estimates of the 1981/82 crop become available.

Grain prices had risen substantially from May 1980 (wheat 23 per cent, maize 34 per cent) until they were also driven down by the speculative sell-off. However, they have since recovered and are expected to continue upward in 1981 in response to the tightening market situation. Given the present mediocre production forecasts for the 1980-1981 crop year, it is expected that, for the first time since the world food crisis of the mid-1970s, grain production will have fallen below the long-term consumption trends for two consecutive years. World stocks fell by 24 million tons in 1980 and are expected to fall further by 40 million tons in 1981 to 210 million tons. This level would cover only 14 per cent of expected annual consumption and thus be below the minimum level of 17 per cent considered necessary to safeguard food security.[42] The FAO has forecast a record rise in world trade in cereals in 1980-1981 to 202 million tons reflecting higher imports by the Soviet Union and by the developing countries. Another year of bad weather in one of the world's major grain producing areas would send prices substantially higher. Carry-over stocks are at minimal levels in Australia, Canada and Argentina, while the United States is the only country with significant quantities available for export.

Coffee, *cocoa* and *tea* prices have remained low as excess supply has led to increases in stocks. Neither the agreement on export quotas by the International Coffee Organization in October 1980 nor the recent partial agreement within the International Cocoa Agreement has succeeded in raising prices.

Metal prices have fallen more or less continuously from the speculation-induced peak in February 1980. Demand slackened as industrial production fell sharply and high interest rates (discussed above) have deterred stock-carrying. *Rubber* has been affected by much the same factors. However, prices are expected to strengthen as production is forecast to be below demand in 1981 and the oil price increase should make it more competitive against synthetic rubber.

Both *wool* and *cotton* prices have held up well in spite of the economic recession, seemingly because droughts in Australia and the United States reduced supplies. Furthermore, natural fibres have improved their competitive position against oil-based synthetics.

Given the unfavourable economic prospects for 1981 and the probability of interest rates remaining at relatively high levels, the volume of imports of primary commodities is expected to remain depressed while prices may rise somewhere between 4-7 per cent.

CRUDE OIL PRICES

Having increased almost continuously since the end of 1978, the average OPEC government selling price of crude oil levelled off during the middle of 1980 at between $29 and $30—per barrel in the face of weakening demand. Subsequently a modified pricing structure comprising three reference levels was adopted at the OPEC Conference in December thus opening the way for an average price increase of 9-10 per cent.[43] By establishing a base price of $32/barrel for Saudi marker crude, a ceiling of $36/barrel for crudes linked to the Saudi marker crude, and a ceiling of $41/barrel for premium crudes (mostly African) the new structure gave the individual OPEC members a certain leeway in raising prices. The resulting $2-4 increases raised the average official selling price of OPEC crude (excluding premium charges) to $34.97,[44] a 35 per cent increase over December 1979.

Entering 1981, the convergence of a number of factors has improved the situation in the world oil market. First, oil consumption has fallen faster than had been expected.[45] Estimates for the countries which are members of the International Energy Agency show a 7.5 per cent drop in 1980 and a further drop of 1-2 per cent is anticipated in 1981. Secondly, measures taken by the IEA member countries to reduce the demand for oil in world markets (and thus also cut pressures on spot market prices) by drawing down stocks at extraordinary rates were effective. Stocks fell at double the normal seasonal rate in the last quarter of 1980 from 460 to 440 million tons. Plans are to increase the rate in the first quarter of 1981 to reduce stocks to 410 million tons by 1 April. Finally, Iraq and Iran have resumed and gradually increased exports to an estimated 1.0-1.4 million barrels per day (still down from 3.5 mb/d before the outbreak of the war in 1980). As a result, spot market prices have recently sunk close to OPEC contract prices and there has been increased reluctance by consumers to pay premiums on official prices.

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[41] This apparent downward inflexibility of prices has been interpreted as possibly indicating the growing market power of the producers of some primary materials. According to this view, these producers seem to be able to reduce output more quickly now in response to a reduction in demand, while prices are raised sharply as demand recovers. If greater control over prices has in fact been achieved, it may be, to some extent, the result of slow capacity expansion due to low investment. Part of the benefit to producers from higher prices, however, has been absorbed by higher costs, particularly energy costs.

[42] FAO, *Food Outlook*, Rome, 28 January 1981.

[43] The 9-10 per cent oil price increase was perhaps higher than had been anticipated earlier and appears higher than the assumption for all of 1981 used by many countries in their forecasts. Even if, as has been suggested, OPEC members are unlikely to press for a further substantial rise in the second half of 1981, the recent increases will have been taking effect in the early part of the year when they would have the maximum impact on short term prospects.

[44] In addition, a system of premiums, commissions, and special fees ranging from $1.50-$11 per barrel on certain quantities of crude has developed to the point where possibly as much as 13 per cent of OPEC output is subject to them. These supplementary charges not only raise the average price of crude above the average official prices given above, but also make a country's source of supply an important factor in determining its import price.

Oil market prospects remain, as usual, uncertain but are expected to be dominated by the following foreseeable factors: stocks are still high and play a stabilizing role, but they will still need to be used at above normal seasonal rates to offset the partial loss of Iraqi and Iranian exports; [46] the rate at which Iraqi and Iranian production and exports continue to increase from their present levels is important, but is probably conditional on the cessation of hostilities; and thirdly, uncertainty remains about Saudi Arabian production plans, but it is probable that they will be lowered since production has exceeded their target rate.[47]

MANUFACTURED GOODS EXPORT PRICES

During the first three quarters of 1980, west European export prices of manufactured goods continued to increase at slightly over 14 per cent per year, a rate which has been roughly constant for about three years. The appreciation of the US dollar against the European currencies during the first three quarters of 1980 implies that the increase in terms of domestic currencies was slightly higher.

Annual rates of growth of manufactured goods export prices [a]

(*Percentage change from the same period in the previous year*)

	1978	*1979*	*1980 Q1-Q3*
Western Europe	15.5	14.3	14.1
North America	7.2	14.3	9.9
Japan	21.3	7.6	5.0 [b]
Industrialized market economies	14.7	14.4	12.4

Source: United Nations, *Monthly Bulletin of Statistics*, New York, December 1980.

[a] Unit value indices in US dollars.

[b] First half of 1980.

In contrast the export price growth in North America slowed in the second half of 1979 from an annual rate of over 14 per cent to about 10 per cent and there appeared to be a tendency for this rate to drop as 1980 wore on. Export price growth may be expected to slow as demand continues to be sluggish.

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[45] This reduction has been attributed by the IEA to three factors, all equally important: the slowdown in economic growth, higher prices for oil, and energy saving measures.

[46] It is felt that the drawing down of stocks will be a key factor in maintaining stability on the oil markets in the coming year. It should be remembered that in the past, inventory policies have tended to accentuate price movements rather than mitigate them. This is because spot market prices have tended to lead official OPEC selling prices upward. Accordingly, when spot prices have risen over a period, stocks would be held on to, or even increased, because of the high probability of inventory profits from subsequent increases in official prices. On the other hand, stocks would be liquidated as spot prices fell, thus reinforcing the fall, as they approached official prices and the cost of inventory maintenance (at high interest rates) exceeded the potential profits from further official price increases.

[47] One possible strategy which Saudi Arabia might pursue is to adjust its production to achieve equlibrium in the markets as a step towards the establishment of the long-term price strategy for OPEC which it favours: small, regular price increases tied to western inflation and GDP growth. Cutbacks in Saudi exports would raise average oil prices.

4. PROSPECTS AND POLICIES

(i) A period of "cooling-off"

The growth of production in the western industrialized countries has now slowed down to virtual stagnation. The prospects for 1981 are rather bleak—on average the outcome may very well be below that of 1980. In such a situation of slow and, in some countries, even negative growth, counter-cyclical policies would normally have been instigated as, for example, in similar circumstances in the years 1974-1975; but present economic policies are now generally restrictive, that is, pro-cyclical. There is a wide consensus among policy makers that such a policy should be continued until inflation has been considerably reduced and safety margins created against the possibility of a renewed upsurge in prices. This is expected to require a relatively long period of "cooling-off", perhaps a couple of years.[48] The adoption of this strategy implies that the search for the "narrow path" of growth without inflation, as advocated by the McCracken report, has been further postponed. The philosophy behind the strategy is that a prolonged "cooling-off" period will reverse, once and for all, ingrained price expectations and other entrenched inflationary factors, after which it would be safe to proceed on the "narrow path" of balanced growth. The possibility of this strategy has, of course, yet to be proved, as inflation is still running at historically high levels and growth is virtually zero in many countries.

It has been argued in previous issues of this *Survey* that the "narrow path" may not exist because of various structural factors which have been gaining in strength throughout the post-war years. These factors are fairly intractable: they may be immobilized during a "cooling-off" period but are likely to re-emerge as soon as policies become less restrained.[49] It might also be argued that the "cooling-off" period itself may create imbalances which will reveal themselves as soon as the period is over. Incidental factors may also intermittently renew inflationary tendencies. Because of the apparent unconditional commitment of economic policies to the suppression of inflation the length of the "cooling-off" period therefore appears rather indefinite. There are several factors to be considered here.

The development of *oil prices* is the most important but also the most uncertain factor to account for in a prediction of future inflation trends and policy responses. Events in the last few years have shown that there are always risks of unforeseen disruptions in OPEC deliveries. There are also constant pressures within OPEC to increase oil prices. The general technical assumption, underlying most forecasts, of no change of oil prices in relation to the prices of manufacturing exports may therefore have an optimistic bias. In view of the uncertainties surrounding future oil supplies and oil prices the desired safety margins against potential disruption would have to be rather large, particularly as the considerations involved here are not only economic but of a broad geopolitical nature. There is, however, no assurance that slow growth will attain the margin of safety since oil producers may counter weakening demand with a reduction of supply rather than prices.

In 1981 there is a clear risk of rising *food prices*. Harvests have been sub-normal in the Soviet Union, eastern Europe, Australia and China. Agricultural stocks are relatively low and another year of bad harvests could well cause the kind of increases in grain prices that played a substantial role in the inflationary surge in 1973-1974. This is a potential source of inflation which in the short run may become more serious than oil. *Industrial material prices* probably have become increasingly sensitive to changes in the growth of industrial production. Expansion of capacity in basic materials has been rather slow whereas target margins of unused capacity may have risen.

All in all commodity prices are not likely to display the same pattern as in the years after the first oil "crises" when they lagged behind the recovery of manufactured prices. The former may therefore accentuate rather than offset inflationary pressures emanating elsewhere. Increases in commodity prices may also worsen the terms of trade of industrialized countries and thereby restrict the scope for real wage increases. This has a bearing on one of the main sources of domestic inflationary pressures, namely the wage-price spiral.[50]

The success of present anti-inflationary policies will to a large extent depend upon their effect on the growth of *nominal wages*. These have to be kept more or less in line with increases in productivity. Since, in the present stage of the business cycle productivity is increasing very slowly, if at all, the scope for increases in nominal wages is small and would be further limited by losses in the terms of trade. If inflation is to be reduced, the scope for increases in wages is very limited indeed.

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[48] Such a line of action has been unequivocally expressed in the annual reports of a number of international organizations: for example the Bank for International Settlements, the OECD, the IMF, the European Economic Community, and the GATT.

[49] See particularly the section "The Road to Recovery" in the *Economic Survey of Europe in 1977*, Part I: "Thus in the goods as well as in the labour market the strong and the well-organized are the price-leaders and they might well block the 'narrow path' for general demand policies. A prolonged process of squeezing and keeping out the weak and unorganized groups will not change the mechanisms of the inflationary process. On the other hand it would not appear particularly inflationary to engage these groups in the production process. But for this purpose one has to rely on selective policies" (p. 41).

[50] It should be noted that from a monetarist point of view increases in import prices (oil prices, etc.) strictly speaking do not have a bearing on inflation as long as the monetary target is adhered to. Eventually nominal wages will be brought down to the rate of increase compatible with the desired price development.

So far there has been some slow-down in the rate of increase of nominal wages, no doubt related to the continuous worsening of the employment situation. Unemployment is expected to increase further in 1981 and a further deceleration of nominal wage growth might therefore be expected. But this development may be of a short-term nature. It has been argued that wage earners in the longer run bargain for a certain trend increase in *real wages*. If this is true, there will be an accumulation of claims during the period of near stagnation when there is hardly any scope at all for real advances. But as soon as the "cooling-off" period is over—or even before—there is a risk of claims for a retroactive adjustment of wages that could not be accommodated even if countries were entering a stage of strong growth.

Finally there are also risks of inflationary pressures emanating from the *exchange markets*. Exchange rates in some countries have tended to move out of line with basic cost and price relationships. Domestic costs, as after the first oil price increase in 1973-1974, have responded in different ways depending on the intensity of the price shocks, policy reactions, labour market structures, productivity changes, etc. The oil price increases in 1973-1974 were allowed to work rather freely through the cost and price structures. The high-inflation countries subsequently adjusted emerging disparities through devaluations. The difficulties experienced in containing the subsequent upsurge in the cost-price spiral have made governments wary of such policies. Thus deliberate devaluations have been avoided and some currencies have appreciated as a consequence of the pursuit of monetary targets rather than of changes in costs and prices. The reason is that the upward cost and price pressure in depreciating countries is generally much stronger than the downward pressure in appreciating countries. Thus there might be a latent need for exchange rate adjustments which, if realized, would tend to give an upward bias to world trade prices.

(ii) Current policies

There are thus various factors that are potentially adverse to the sought-for dampening of inflation: developments in the markets for oil, food and industrial materials, nominal wage rate mechanisms and exchange rate alignments. If these developments turn out unfavourably and the strategy of "cooling-off" is strictly adhered to, the period of near stagnation would be prolonged indefinitely. The reason is that economic policy has been intimately linked to price developments in the short as well as in the medium term.

The strategy for a progressive reduction of inflation, particularly in the larger countries, is formulated in terms of a *monetary target*, the general practice being to set this target below the expected inflation rate. As long as such a strategy is pursued, it would preclude any significant revival of real demand, assuming that the economy behaves as it is supposed to do. The actual rate of increase of the chosen monetary aggregate in some countries has been undershooting the set target. In others the monetary variable has been overshooting (United Kingdom) or fluctuating about the target (United States) but have, nevertheless, been below actual inflation rates. It is thus clear that monetary policies at present are strongly contractionary, and in the foreseeable future will continue to be so. Any new oil price increase will have an additional deflationary impact.

Efforts to adhere to the monetary target in the United States have caused escalating interest rates and have tended to gear expectations to still higher rates, particularly since there seems to be only limited scope for changing the mix of fiscal and monetary policies. Interest rates thus have to bear the brunt of adhering to the strict monetary targets. There is hardly any possibility of abandoning the targets since that would mean the loss of a hard-earned credibility of the whole economic strategy.

As the United States' economy is now apparently recovering from a short but intense recession ahead of the west European countries, the former would normally have acted as a "locomotive" for the latter. The high rates of interest in the United States however, act as a deterrent to renewed growth not only domestically but in other countries. They have reinforced the downward pressure on the Deutschmark which was already stemming from the adverse development of the current balance. The freedom of action of domestic monetary policies has thus been restricted since interest rates cannot move independently of those in the United States. Lower rates in the Federal Republic of Germany could create further capital outflows and further downward pressure on the Deutschmark, which in turn would have an adverse effect on the domestic rate of inflation. It is also feared that lower interest rates and more erratic movements of the monetary aggregate might give the wrong signals to the labour market.

The gradual shifting of economic policy-making in the Federal Republic of Germany to concern about the balance of payments has caused problems for those countries —in the first place Belgium and the Netherlands—that previously had followed to a large extent the lead of their dominant trading partner. Interest rates in these countries have been determined largely by rates in the Federal Republic of Germany and by expectations concerning the future exchange rate with the Deutschmark. Much the same relationship exists between interest rates in the United States and Canada. Real rates of interest in the dominating countries however, have now reached levels where they will be questioned from the general point of view of the present stagnation of output and particularly in regard to the avowed aim of stimulating real investment. But exchange markets are behaving as if the high interest rates in the United States will remain for a fairly long time. (They may, however, fall quickly if it becomes clear that there will be no genuine recovery in the United States.) Expectations about exchange rate alignments on the other hand, may not materialize until the more energy-dependent countries (for example, the Federal Republic of Germany) achieve a better energy balance. The present, deflationary, levels of interest rates may therefore remain for quite a while.

The United Kingdom's experience is contrary to that of the Federal Republic of Germany in that a favourable balance of trade has tended to appreciate the currency. Capital inflows have been an additional factor. Rates of interest have been high as a consequence of efforts to neutralize the liquidity effects of a large public sector borrowing requirement. This has only been partially successful and the monetary target has been persistently overshot. An additional factor behind the overshooting seems to be a growing asymmetry between financial savings in the household and enterprise sectors. The cash-flows of enterprises are squeezed because of high interest rates and low productivity. The consequent increase in intermediation inflates the monetary aggregates and is equivalent to a lowering of the income velocity of money. A given monetary guideline might then understate the restrictive effects. The effect of North Sea oil on the exchange rate has proved particularly hard to allow for inside a general monetaristic strategy. High interest rates and an appreciating pound appear to affect the real economy much faster than is indicated by the actual development of the money supply.

Fiscal policy is subordinated to monetary policy in countries where monetary targets are being pursued. The mix of fiscal and monetary policies which was practised in the 1974-1975 recession according to traditional Keynesian prescriptions has thus been abandoned. Both the size as well as the methods of financing the public sector borrowing are subordinated to the requirements of the monetary target. Public expenditures are also being held back in order to make room for the private sector and for an increase in the scope for "market forces". One important implication of this strategy is that unforeseen deflationary factors, such as an unexpected increase in households' propensity to save, will in principle not be offset by discretionary expansionary fiscal policy. Any balancing effect will have to come from automatic fiscal stabilization or from falling interest rates. Such a renunciation of Keynesian "fine tuning" is implicit in a commitment to a medium-term monetaristic strategy.

There is now generally less discussion about, and apparently also less faith in, incomes policies as a means of containing inflation. Incomes policies involving tax concessions would go against the grain of the monetary strategy which depends on market forces to reduce gradually the rate of price increase. There are, however, many more or less subtle forms of incomes policies. Even monetaristic policies can be seen as (an indirect) way of persuading the labour market participants to conform to an anti-inflationary guideline, especially if the monetary target is taken as a starting point for wage negotiations.

(iii) The present outlook

In view both of the uncertain outlook for inflation and of the overriding priority of reducing it, there will be no decisive stimulus to growth from the public sector. One thus has to look for factors in the private sector that would contribute to a revival in the not-too-distant future.

According to the business survey evidence for manufacturing industry in the member countries of the European Economic Community there was a down-turn in the middle of 1979: the business climate indicator and the evaluation of order books started to fall, while the indicator for stocks of finished products started to rise. The climate indicator is shown in chart 1.4.1 and the combined order book and inventory index—the index of "demand pressure"—in chart 1.4.2.[61] Since the turning point, the latter index has been falling continuously; in November 1980 it was around the same level as in the previous trough it was around the same level as in the previous trough of about three years earlier, but with no indication of an upturn. Price expectations were falling during the first

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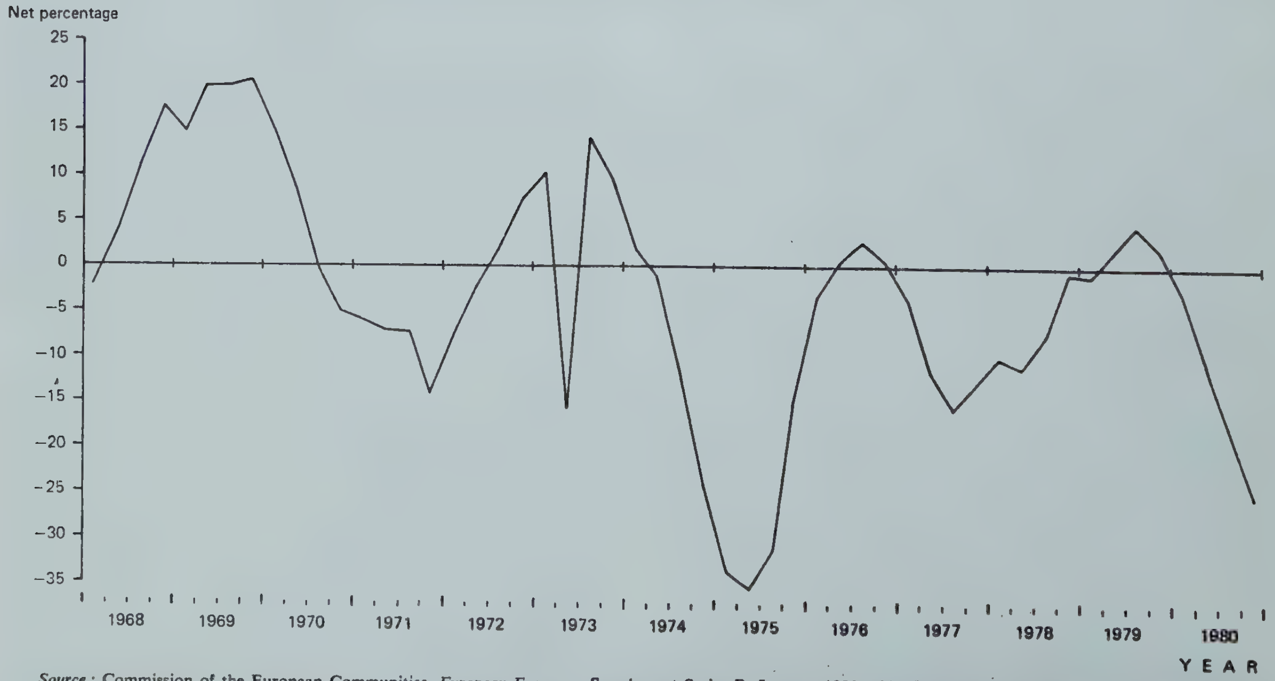
[61] For an explanation of the charts, see the notes to the charts and also the *Economic Survey of Europe in 1979*, pp. 49-50.

CHART 1.4.1

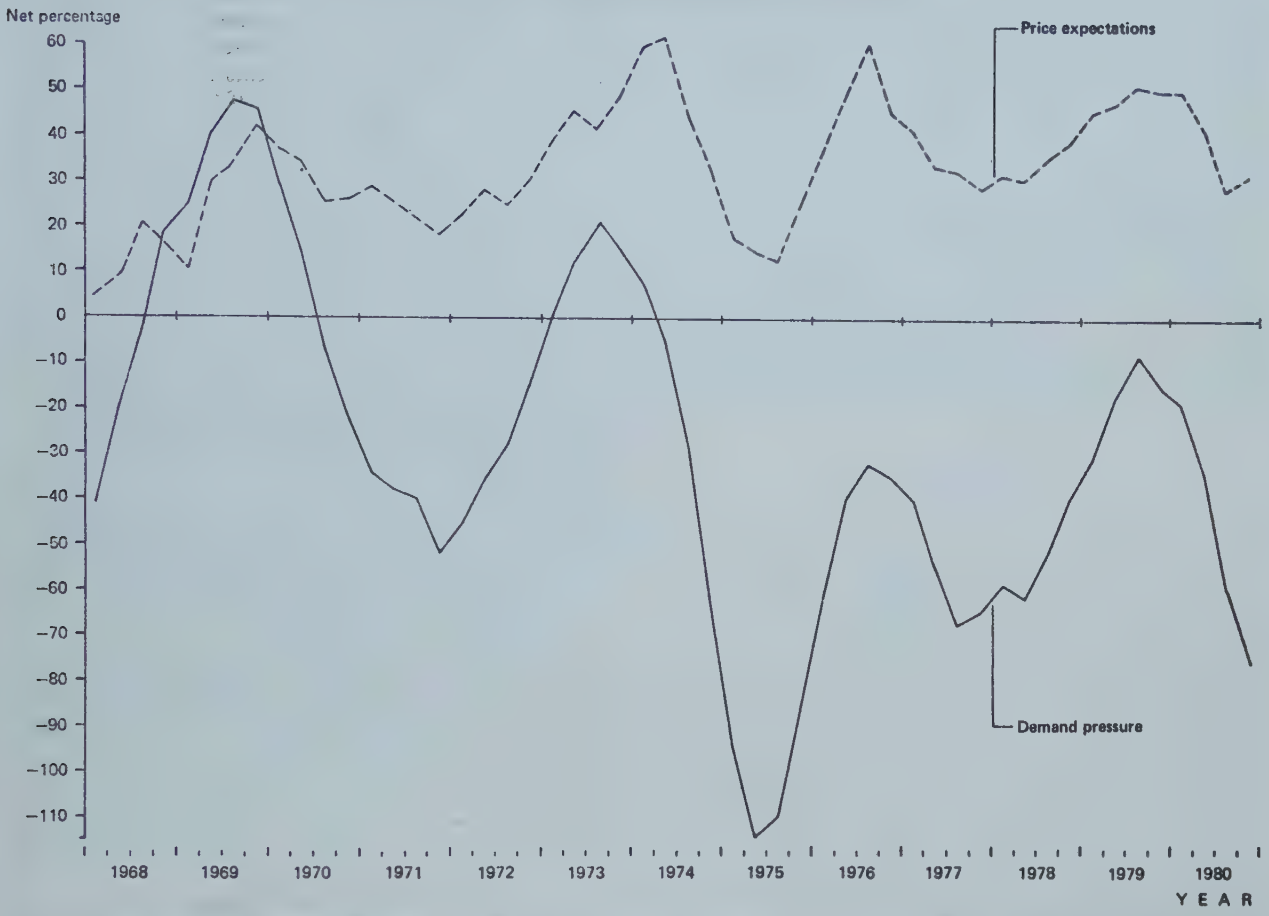
Business climate indicator: EEC countries



Source: Commission of the European Communities, *European Economy*, Supplement Series B, January 1981. The indicator is an average of net balances for the percentage of respondents (a) expecting increasing (+) vs. decreasing (−) production in the months ahead and (b) indicating below normal (+) vs. above normal (−) stocks. The data are seasonally adjusted.

Chart 1.4.2

Demand pressure and price expectations: EEC countries



Source : Commission of the European Communities, *European Economy*, Supplement Series B. January 1981 and prior issues and, for the period to 1978-II, directly provided data. Demand pressure is calculated as the difference between the percentage of respondents indicating (a) increased (+) vs. decreased (−) new orders in the recent past and (b) high (−) vs. low (+) stocks of raw materials. The selling price expectations measure shows the net percentage of respondents expecting increasing (+) vs. decreasing (−) prices in the months ahead. The data are seasonally adjusted.

half of 1980 but stabilized in the second half at a level a little above the low point of three years earlier (see chart 1.4.2). There are, however, large differences between countries.

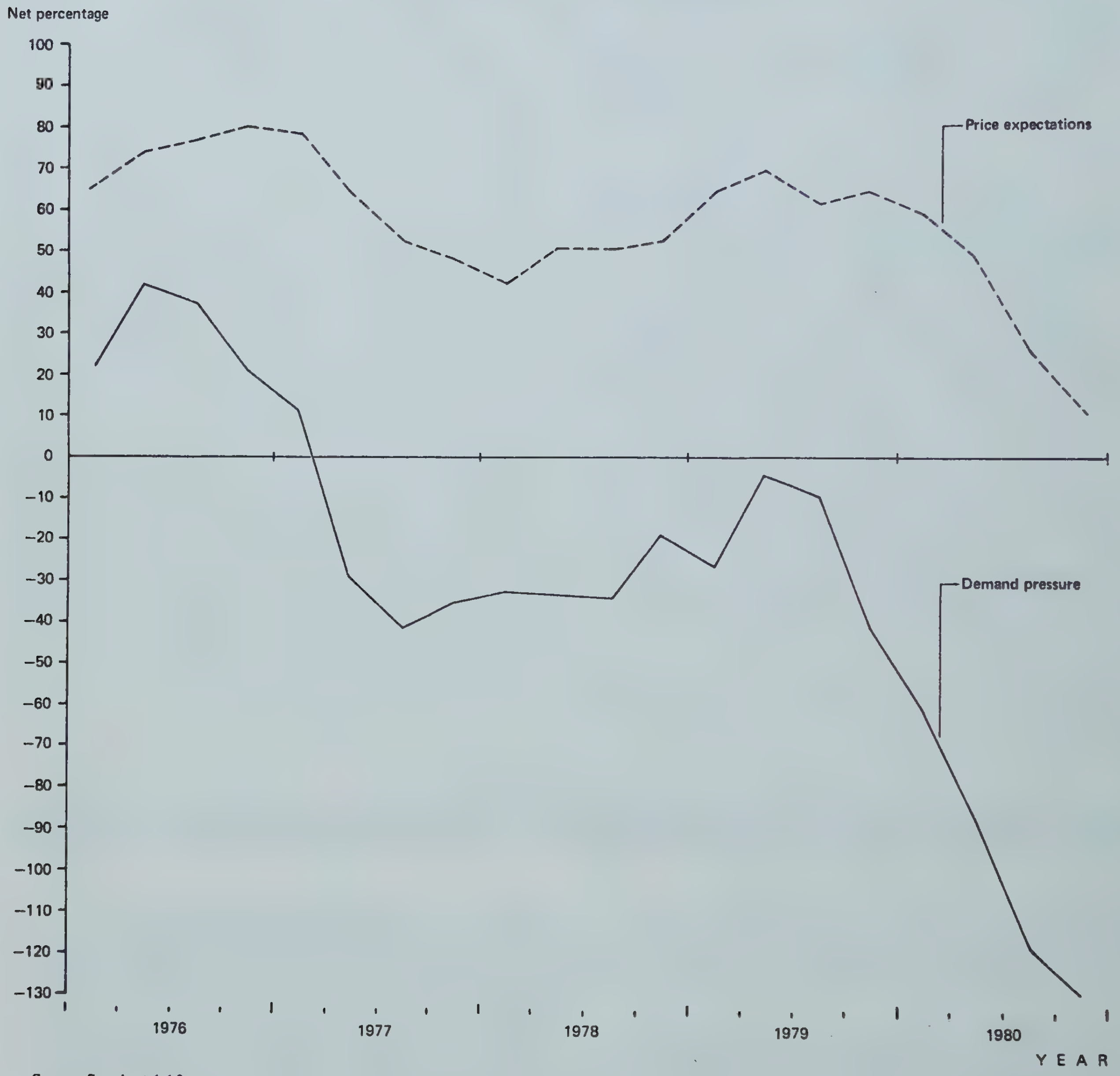
In the *United Kingdom*, and to some extent also in *Ireland*, price expectations fell rapidly during the year. The "demand pressure" index has deteriorated dramatically, the evaluation of order books in particular being now at an all-time low in both countries. There has thus been a very close co-variation between the two variables (see chart 1.4.3). The business climate has also been worsening although there was some levelling-off in the second half of 1980. In the other European Economic Community member countries the deterioration in the business climate and the fall in the index of "demand pressure" have been less spectacular than in the United Kingdom and Ireland.

The pattern of developments referred to above is likely to influence the present investment decisions of enterprises. The demand pressure indicator seems to be related to (and to lead) industrial production and capacity utilization. The business climate indicator measures the confidence of enterprises in the immediate future. The behaviour of price expectations reflects enterprises' judgement of the future conduct of the anti-inflationary policies pursued by governments. For the United Kingdom and Ireland the effects of price expectations would be favourable in the sense that the anticipated slowing down of inflation would signal that the end of the harsh restrictive policy is at least in sight. The "deficit demand" and lack of confidence would, however, be adverse to investment decisions. Only in the Federal Republic of Germany do the indicators seem to indicate an environment relatively conducive to investment: confidence appears to be relatively high and enterprises seem to be optimistic about price developments. Belgium, on the other hand, with as favourable a development of price expectations as in the Federal Republic of Germany, show a weak performance for the other two indicators. In France and Italy the constellation is unequivocally adverse to investment in manufacturing.

Thus in most countries a significant increase in *private investment* does not seem probable either in fixed capital or in inventories. To be sure, business fixed investment is not collapsing as in 1974-1975—profits and liquidity are now generally better than they were then—but ca-

CHART 1.4.3

Demand pressure and price expectations: United Kingdom



Source: See chart 1.4.2.

pacity considerations and credit conditions militate against an improvement. High interest rates are particularly affecting investment in housing and inventories. There might be some improvement during the course of 1981 but it is unlikely to be on a scale that would give an impetus to general economic revival. This atypical cyclical behaviour is mainly accounted for by the pro-cyclical stringency of monetary policies.

In 1980 there was no increase in real disposable income in North America, and no more than a 1-1.5 per cent increase in the Federal Republic of Germany, France, the United Kingdom and Italy. The development in 1981 is very uncertain. Real income of households should increase slightly in North America, decline in the United Kingdom and increase at about the previous year's rate in the Federal Republic of Germany, France and Italy. The effect of net taxes will—on present policies—be negligible in most countries. Given the assumption of unchanged savings ratios, *private consumption* would change in the same way as real income: thus there would be little impetus to a revival coming from private consumption. Uncertainties about saving ratios concern possible increases as well as decreases. In the face of sharply accelerating inflation rates after the first oil crisis, savings rates increased dramatically. Such a tendency would, according to previous experience, be reinforced by the prospect for unemployment which is bleaker now than for a very long time. As successively more persons (and family units) become unemployed for longer periods, savings are more likely to be drawn upon. This is the more likely given the severe and widespread limitations on the availability of consumer credit.

The consumer surveys conducted by the statistical office of the European Economic Communities give some indications of the present attitudes and expected behaviour of households in the near future. It appears that their economic outlook has become gradually more pessimistic since the beginning of 1979, and is presently comparable to the low point reached during 1974-1975. (It is below that point in Denmark and the Netherlands.) It should be noted also that the price expectations of households seem to be much less volatile than those of enterprises. Towards the end of 1980 they were generally close to those prevailing one year earlier (in the United Kingdom there was, however, a significant fall). Generally speaking, the pattern of households' expectations are similar to those prevailing in 1974. Their plans for future savings and major purchases were on average as subdued in 1980 as in 1974. Households obviously foresee stagnating or falling real disposable income. To the extent that these expectations turn out to be too pessimistic, *ex post* savings may exceed *ex ante* savings. All in all the survey evidence seems to agree with macro-economic considerations that no significant contribution to growth will emanate from the household sector in the near future.

Individual countries may rely on *exports* as a source of stimulation but for the region as a whole there are no indications of a strong performance. The deflationary effect of the oil price increase seems to have been as large in 1979-1980 as it was in 1973-1974, but the offsetting absorption of OPEC imports is likely to be weaker this time. The tendency to increased competition among the industrialized countries will not, of course, change their situation as a group.

The above discussion has pointed to some of the similarities between the present situation and that which preceded the serious recession of 1975 when GNP in western Europe and North America declined significantly. As shown in section 1 of this chapter, the 1974-1975 recession appears to have been deeper than the present one, but the downswing then started from much higher activity levels. The present depression appears shallow but there has not been much of a peak to fall from. Private fixed investments as well as inventories have been relatively flat. The whole picture is more of a levelling out of the business cycle. That at least seems to be the case in western Europe, although in the United States there is more of a cyclical pattern. But then there has, in the United States, been at least a resemblance of the traditional counter-cyclical policy. Furthermore, inflation in the United States has, for two consecutive years (1979 and 1980), reached two-digit figures with no apparent tendency of slowing down. The "cooling off" period has hardly begun.

The "mini-boom" in 1976 was followed by a recession in 1977 in a majority of west European countries. It was rather unusual for an impending boom to be broken at such an early stage in the cycle. The main reason for this was the application of restrictive policies as soon as there were signs of an acceleration of inflation. Thus, the stock-building mechanism went into reverse, private consumption levelled out because of unemployment and stagnating real wages, and fixed investment was discouraged because of lack of confidence. This time there has been no easing of policy in western Europe in the aftermath of the second major increase in oil prices. Therefore instead of a mini-boom, a rather drawn-out recession is more likely. The present commitment to anti-inflationary policies—and to maintenance of their credibility—leaves very little scope for manœuvre over the next few years. It seems in any case clear that unemployment will continue to increase and, by 1982, will have reached the highest level since World War II in most countries. Unemployment, furthermore, is worsening not only with regard to sheer numbers. There is a tendency towards longer duration of unemployment for the unemployed.[52] One of the most serious aspects of the present situation is the high degree of youth unemployment: almost half of the unemployed are below 25 years of age. These developments severely strain the fabric of society and place a heavy obligation on present restrictive economic policies to show that the costs of this strategy will be worthwhile in terms of deferred social welfare.

(iv) Restriction or expansion

There has been some success in reducing and holding down inflation, notably in the Federal Republic of Germany and Switzerland. However, these examples may not be taken as complete proof of the general applicability and effectiveness of monetarist policies.[53] It can be argued that in these countries certain prerequisites were, and are, present without which such policies would not have been successful. From this standpoint one may even raise the question whether other policies could have performed as well or better in terms, for example, of the cost of forsaken growth. The particular requisites concern primarily the characteristics of the labour market: its supply elasticity (for example, the availability of immigrant workers) and its related "discipline" in wage negotiations. Memories of the great inflation after the First World War may also still be an influence on the behaviour of households and enterprises. These factors played a role in the stabilization policies which were successfully pursued in the years before the application of formal monetarist policies. Previously the focus was on the exchange rate rather than on a monetary aggregate: in the 1960s there was thus a policy discipline in the Federal Republic of Germany with regard to the Deutschmark.

The United Kingdom on the other hand can be said to represent a very severe test case for monetarist policies. The recent development has been one of large imbalances in several respects. The labour market in the United Kingdom is, furthermore, fragmented with staggered negotiations which are apt to strengthen the mechanisms for competitive wage claims. Various economic policies have been tried, so far without apparent success, to secure a non-inflationary performance from this very heterogenous market.

Economists' prescriptions for policy range, at present, from severe restraint to moderate expansion. In some ways this range of opinion recalls the discussion at the beginning of the 1920s. At that time the issue also concerned the repression of inflation and the use of monetary policies. Most economists were in favour of severe deflation, while the "practical" men, entrepreneurs and private bankers, were mainly in the expansionist camp.

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[52] See OECD, *Economic Outlook*, Paris, December 1980, pp. 26-27.

[53] Monetarist policy being defined as an economic policy using a pre-determined path for monetary aggregates as the main intermediate target. The problems faced by monetarist policies during their first years of application were discussed in *Economic Survey of Europe in 1978*, Part I.

The present discussion has in particular concerned the United Kingdom, which is natural considering the unusual case study in monetarist policy which that country is offering to both economists and "practical" men. Various positions with regard to this policy are available in the form of memoranda contained in a recent official report on monetary policy.[54] The following classification of policy recommendations is to some extent based on that report.

The current debate concerns some basic issues: the degree of priority to be given to the repression of inflation; the nature of the inflationary mechanisms; the consequent application of policy instruments; and the preconditions for renewed growth. Even if it were agreed that one or another strategy would actually attain a given set of targets, differences of opinion would still remain as to the costs that would have to be incurred in each particular case.

For the monetarists there is no doubt that the distortive effects of inflation are so large and obvious that the fight against inflation must have priority over anything else. Inflationary expectations, once entrenched, are regarded as the driving force as they influence all kinds of contracts. These expectations must be eradicated and for this purpose a restrictive medium-term monetarist policy is the only robust strategy available. Once it is quenched there will not be any renewal of inflation if the monetary targets continue to be adhered to; and if they are, the conditions will also be created for sustained growth. Monetary policy cannot by itself assure such growth but it will facilitate it, not only by the eradication of inflation but also by the retrenchment of the public sector and by assuring the play of "free market" forces.

Inside the restrictionist camp there are various factions. According to *pure monetarism*, represented by the well-known doctrines of Milton Friedman, monetary restraint should be exercised through the monetary base which the authorities can control directly. In a famous analogy the use of interest rates for monetary control is compared with the use of rail or air fares to control auto production. A precise analogy to the control of base money is the control of motor car production by operating on the availability of steel.[55] The determination of both interest rates and the exchange rate should be left completely to market forces. There will, furthermore, be no scope for governments to smooth the process of monetary restraint —the result would be wild gyrations of all the control variables involved. According to Friedman the monetary policies in recent years both of the United Kingdom and the United States (even after the change of operations in October 1979) have been faulty in these respects.

The deviations of actual policy from "pure" monetarism partly reflect different conceptions concerning the functioning of the economy, and especially the transmission mechanisms of monetary policy. But problems have also arisen in respect of short-run policy reactions to unexpected events, instabilities in hitherto stable relationships, the need for inevitable political compromises, etc. From time to time there have thus been shifts in the setting of immediate monetary targets and in the extent to which the orderly functioning of money and capital markets has been taken into consideration. When quantitative targets induce changes in interest and exchange rates, which in turn may have feed-back effects that modify the original objective, one can speak of pluralistic monetary policy; France is perhaps the best example where policy is explicitly conducted in this way.

Differences of opinion among advocates of restriction also concern the recommended speed of policy implementation. The *gradualists* are in favour of a rather drawn out process of slowly declining monetary targets (1-2 percentage points a year) set in advance over a number of years, carefully published and scrupulously followed. This need not necessarily imply a long shallow depression and a gradually falling inflation rate. It is more likely that it will lead to swings in both output and inflation although the latter would be around a falling trend. In an open economy a floating exchange rate is seen as the main channel for downward pressure on wages and prices. But if domestic prices do not respond, the effects will be concentrated on incomes and employment in industries competing in international markets.

It has been argued that the sum of the various negative side effects of monetary restraint can be made smaller the more rapidly and intensively the policy is applied. If such a policy is properly understood when announced and implemented, the disturbances to output and employment from reducing public sector borrowing and the money supply would be minimized. There is thus a case for immediacy rather than gradualism. Since expectations are crucial, indexed bonds should be part of the effort to increase the credibility of the government's anti-inflationary policy. (This is also suggested by Friedman.) If such credibility is achieved, the adjustment process would be accelerated by rational expectations and the desire of private sector agents to maintain equilibrium in their portfolios between goods and financial assets.

According to the *expansionists* the loss of foregone growth and the burden of unemployment implied by restrictionist policies are considered intolerable and, furthermore, unnecessary or even adverse to the pursuit of price stabilization. There has to be growth in order to satisfy real wage demands which otherwise, sooner or later, will nullify the gains made in holding down nominal wages. If the growth of real wages is on average reduced so as to be consistent with lower inflation, it is likely that this will only be achieved by the weak sectors falling behind while the stronger ones move ahead. The resulting wage structure will not be viable and sooner or later a catching-up process will be set in motion, so that any alleviation of inflation will be only temporary.

Among the expansionists there are, however, differences of opinion about the need for measures to support general demand management. (Monetarists generally judge these measures as being of no use or even adverse to efforts to stabilize prices.) Some expansionists still see the possibility of a "narrow path" of growth together with improved price performance, the latter brought about by incomes policies including tax concessions. But there is also a wide recognition of the intractability of the problem in terms of such solutions as were offered by the McCracken report. There will therefore be a need for limiting, at least temporarily, the free play of market forces. Supporting measures may include the freezing of all types of incomes and of prices, subsidies to and duties on foreign trade, dual exchange rates, and import quotas.[56] Such recommendations are the very opposite to the monetarists' recommendations for strengthened competition. This opposition to some extent follows from the basic nature of the two strategies, i.e. of being restrictive and expansive respectively.

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[54] Treasury and Civil Service Committee (House of Commons), *Memoranda on Monetary Policy*, London, HMSO, 17 July 1980. In the text above references are made to contributions by Professors Milton Friedman, D. E. W. Laidler, A. P. Minford, F. Hahn and Professor Lord Kaldor.

[55] This example looks less adequate, however, in view of the increasing possibilities of substituting aluminium and plastic for steel.

An expansionist programme appears to be the only articulated alternative in sight if monetarist strategies fail. If they do, one can hardly imagine policy prescriptions for any country which are harsher than those to which the United Kingdom has submitted itself voluntarily. A case for protectionism, on the other hand, has now been argued for several years by members of the Cambridge Economic Policy Group.[57] The central argument is that import controls need not decrease import volume by any more than it would have fallen anyway under restrictive policies where output growth and imports shrink together. World trade may even be relatively better off, particularly if import controls are managed in such a way that there is discrimination against countries with balance of payment surpluses in favour of developing countries. The doctrines of free trade and established international rules militate against such solutions.

(v) The role of the labour market

In some small west European countries the concern about external imbalance has taken precedence, to some extent, over inflation. These two phenomena are of course inter-related. The policy problem is to decide to what extent "structural" factors are behind a large deficit in the current balance.

In the larger west European countries, together with Belgium and the Netherlands, the current balance was generally in equilibrium over the decade 1970-1980. The accumulated deficit or surplus does not amount to more than a couple of per cent of GNP in 1980. Other countries have accumulated deficits of more than 10 per cent of GNP, ranging from about 10 per cent in Canada and Sweden to 28 per cent in Norway. Part of the deficits can, of course, be accounted for by higher oil costs which have been particularly burdensome for some of these countries. Another part derives from cyclical factors, notably the efforts in some countries to bridge the recession of 1974-1975. In some countries a related factor has been a relatively high rate of inflation that has caused an over-valuation of the exchange rate. In the medium term the slow-down of the growth of investment in manufacturing will have particularly severe effects in countries which to a large extent have relied on export branches that are now feeling the impact of generally shrinking world markets and/or increased competition from abroad: shipping, shipbuilding, textiles, motor car production, steel, etc. These problems are not, of course, confined to small countries. But they have for various reasons preferred to focus economic policy on the external balance in an approach that can be called neither monetarist nor expansionist. A theoretical as well as a practical foundation for a small country strategy has been the so-called "Scandinavian model". The basic guideline derived from this model is that nominal wages in the exposed sector [58] should not increase faster than its productivity increase plus the price increase of international competitors. The same increase in wages should be accepted also in the sheltered sector. The model thus presumes a solidarity between wage earners and aims to maintain long-run international competitiveness.

The "Scandinavian model" for wage setting has faltered in various ways and particularly in Sweden where the mechanisms for wage negotiations worked smoothly for almost 50 years. It has been increasingly difficult to forecast the changes in international prices and in productivity which should guide the setting of wages in the exposed sector. The government is not represented in the wage negotiations: it has actually been a basic principle that the government should remain out of them. The public sector trade unions have, on the other hand, become increasingly important with the relative growth of their sector. Backed by threats of strikes, they have also become more aggressive in their wage claims, which the government has not been able to resist. The sheltered sector has thus tended to become the wage-leader, with wage increases that have been eroding the competitiveness of the exposed sector. When costs in the latter sector have become excessive the unprofitable enterprises have been shut down. The causal link has thus run from wage costs to productivity instead of the other way round, as average productivity *ex post* has increased in the shrinking industrial sector. Under such circumstances it can be said that the labour market partners in the short run negotiate about the inflation rate and in the long run about the size of the exposed sector.

In Sweden there has also been a tendency to a widening of the spread between the profitability of various enterprises and industry branches. This tends to strain the solidarity between wage earners which is also a precondition for the "Scandinavian model".[59]

There are various ways in which this model might be restored. Since international price developments as well as productivity changes are difficult to anticipate, there should be a mechanism by which the scope for nominal wages set by these factors is not exceeded in advance but adjusted *ex post*. There might be one fixed part (a floor) and one moveable part, the latter depending upon how much room there later turns out to be. The government should participate in the first stage since tax adjustments as well as exchange rate changes may be part of the agreement. (There could be, for example, a commitment to an unchanged exchange rate or to a policy of slow but steady appreciation.) At this stage there would be agreement about a minimum increase for the disposable real wage. There should be monitoring bodies concerned with the scope for further wage increases (i.e. not related to any given increase in real wages fixed in advance). The moveable part would be left to the labour market partners to negotiate. At the second stage wage increases could take the form of general supplements, retroactive lump sums or could be retained in the enterprises, for example, through new share issues. Adjustments of the wage structure could be made through local wage changes linked to changes in productivity or profits. There would, of course, at the time of the conclusion of the first stage, be uncertainty, both for enterprises and employees, about the real value of the profits or wages they will eventually obtain. But neither can certainty be assured by the existing system of negotiations, the outcome of which is influenced by subsequent changes in taxation, prices and wage-drift.[60]

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[56] See memorandum by Professor Lord Kaldor to the Treasury and Civil Service Committee, *loc. cit.*, pp. 87-129.

[57] See Wynne Godley and Robert M. May: "The macro-economic implications of devaluation and import restrictions" and Francis Cripps: "Causes of growth and recession in world trade", in University of Cambridge, Department of Applied Economics, *Economic Policy Review*, March 1977.

[58] That is, exposed to international competition.

[59] Recently there has, however, been a very restrained wage agreement without any participation or interference by the government.

One of the advantages of the system described here would be the possibility of lengthening the contract period since one need not guess in advance the development of productivity and of international prices. Furthermore, inflation could be more easily contained since continuous appreciations could be built into the negotiations. It would be easier to achieve the necessary lowering of real wages since wage earners would have a guarantee that their restraint would not lead to excessive profits, for example, through depreciation. Above-normal profits in particular branches and enterprises would be shared through the link of wages to productivity. This would stimulate employment in industry and help to reverse the present downward tendency. As a complement the government could impose a ceiling for the rate of increase of the nominal wage sum of the public sector to prevent wage-drift and wage-leadership in this area.

One example of a successful small-country strategy is that of *Austria* which has lately managed remarkably well with regard to inflation and employment. The basis for this strategy is the "social partnership" that was originally patterned on the negotiations practised in Sweden but with particular features which take care of the weaknesses that have gradually appeared in the "Scandinavian model".

In Austria overriding importance is given to a *hard currency policy* in order to mitigate the impact of rising import prices. Efforts have been made to keep the real effective exchange rate approximately constant over the medium term. For this purpose the government uses a trade-weighted index of the currencies of Austria's most important trading partners adjusted for the weighted consumer price differentials. Such a policy creates a defence against imported inflation.

The current account disequilibrium requires a restrictive monetary policy, but the National Bank of Austria does not guarantee any rate of money expansion. Such a guarantee would imply domestic financing of any balance of payment deficit in addition to the guaranteed amount regardless of the reasons for and the size of the external deficit.[61] The official guideline instead concerns private bank lending enforced by a policy of ceilings on credit expansion.

The hard currency policy together with the credit guidelines can be seen as an alternative, for a small and open economy, to the monetary target approach. Within this framework attention is also given to the need for industrial restructuring by a policy of low interest rates and guided capital imports.

The hard currency policy exerts pressure on the growth of wages in the exposed sector of the economy. Because of the solidary wage negotiations in Austria, similar wage contracts are concluded in the protected sector. For over a decade Austria has had a history of voluntary "social partnership" (*Sozialpartnerschaft*) which probably represents the most successful example of incomes policy. This is a system of counselling and negotiation. The central instrument is the *Parity Commission* with representatives from employers, employees, farmers and the government. The Chancellor of the Republic is chairman of the Commission and has had at his side the ministers of labour, finance and social affairs. The starting point for negotiations is decided by a special sub-committee which can freeze wages at their current level. Price increases have to be defended before another sub-committee and have to be justified by increased costs for raw material, energy, wages, etc. The "social partnership" rests on a basic agreement that the government maintains full employment and that the labour market partners show restraint with regard to wages and prices. The basis for higher wage claims is changes in productivity. The existence of strong and centralized organizations is a precondition for the smooth working of the whole mechanism and the continuous (monthly) deliberations in the Commission have created an atmosphere of social stability. The issues are resolved by negotiation and not by confrontation. This has not only been helpful for price stability and growth but has also made Austria attractive for foreign investments.

(vi) Another approach

The apparent difficulties in finding satisfactory strategies for coping with current economic problems raise the question if, and why, the industrialized market economies have changed in such a way that conventional macro-economic policies are no longer as effective as they were. There is a whole range of such explanations and criticisms. Some of the criticisms concern fundamental aspects of the functions of the private and public sectors. They suggest the usefulness of a fresh approach to the analysis of the economy as a whole and not only of the traditional "formal" sectors which are the objects of conventional analysis.

Much of the criticism is reflected in the notion that the information system used for macro-economic policies is too narrow and is becoming increasingly irrelevant. The concept of growth as measured by Gross National Product (or NNI) has only a vague and varying relation to real welfare variables such as the standard of living, employment and income distribution. The alleged costs of growth such as crime, stress, delinquency, drugs, vandalism, noise, bureaucracy, degradation of environment, etc. are not taken into account. The public sector is treated very schematically and most of the activities in the non-market private sector are not included.

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[60] These arrangement have been proposed by the "five wise men" in their report *Stabiliseringspolitik för 80-talet*, (Stabilization Policy for the 1980s) SNS, Stockholm, 1980, pp. 22-23.

[61] See Bank for International Settlements, "Arguments against monetary targets—the case of Austria" in *The Monetary Base Approach to Monetary Control*, Basle, 1980.

There are a number of well-known arguments which question the efficiency of monetary as well as fiscal policies. Monetary targets that are controllable may have only a very indirect and unstable relationship with the ultimate target variables. Price changes make the effect of monetary policies particularly unpredictable since real interest rates are not directly controllable. Inflation also distorts the effect of interest rates through tax deductions in combination with progressive income tax structures. Fiscal stimulation by increased public demand may "crowd out" private demand directly by offering goods and services formerly provided by the private sector. Indirectly, expansionary fiscal policy may "crowd out" private demand through higher interest rates. Fiscal policy may actually lead to contraction through its effects on domestic costs and prices and, thereby, on exports and imports.

There is, however, an even more serious problem that concerns the capability of macro-economic policies, however well conceived and executed, to cope with the ever increasing complexities and vicissitudes of continuously changing industrial economies. These seem to be gradually losing their flexibility both with regard to the ways in which demand reacts to prices and in which prices react to structural changes.[62] Governments overrule market forces and suppress competitive price adjustments (example: farm prices). The bailing out of ailing companies ossifies production structures. Workers have become less willing to change jobs. These kinds of rigidities may be less noticeable in periods of satisfactory growth but are obstacles to the increased need for shifting various kinds of resources in periods of stagnation. The inflexibility causes a fragmentation of the economy into regional and sectoral imbalances. There can, at the same time, be overheating in some sectors and regions, unemployed resources in others. In order to remove such imbalances, macro-economic policies tend to become increasingly more drastic and costly.

An often discussed problem of the industrialized market economies is the way in which they have turned into "Welfare States". One characteristic of such a state is the growing share of welfare and other expenditures including health, education, labour market supports, etc. Expenditures are pushed to a level which the economy cannot support without high costs in terms of productivity losses, as the private sector is being hampered also in this long-term perspective.[63] The slowing down of growth to near stagnation has raised the perceived costs of welfare, caused resistance to its further expansion and drives for its reduction. The mounting fiscal burden has caused dissatisfaction and is an alleged incentive not to work. Another aspect of the growing problems of the welfare state is that not only those who pay for but also those who receive the welfare are dissatisfied. Often this is related to the fact that the rapid expansion of certain public services has been accompanied by a deterioration in their quality. Education is a case in point: the rapid expansion of the 1960s, due to more ambitious goals and to demographic factors, often outstripped the growth of facilities and the supply of qualified teachers. Thus for many the expectation of a better education was disappointed, as can be seen from the still relatively large numbers of children who leave school with few or even no qualifications to enter a world which is increasingly demanding of them.

These poorly qualified school-leavers are then faced with shrinking job opportunities, for automation and large-scale production is growing rapidly in precisely those activities where hitherto they might more easily have been absorbed, viz., in the relatively unskilled and repetitive jobs in both the manufacturing and service sectors. Their position has also been aggravated in these sectors by minimum wage legislation and high social security costs which have probably re-inforced the incentives to greater automation. There is thus a tendency for a polarization between skilled and unskilled jobs: indeed in western Europe skill shortages have increased alongside shrinking opportunities for the poorly educated who, at an early age, acquire defeatist attitudes and a general feeling of "helplessness" in regard to their future.

Large scale production and organization is not limited to industry but has spread also to services including the public sector. These sectors, furthermore, have tended to become more integrated in important respects, e.g. transport and medicare, energy and food production. This tends to conserve existing supply structures and to hamper initiative and innovation. To a large but decreasing extent these activities are sheltered from competition from abroad.

Much of the criticism of the industrialized market economy indicated above concerns the working conditions (in a wide sense) that this kind of society creates and the supply choices that private enterprises and the welfare state offer. To some extent there are corrective factors at work. There are tendencies towards restraint on the growth of the welfare state which, however, may create vacuums that the private market sector is not willing or able to fill. There are also price signals which, when they are strong or persistent, are capable of initiating changes in new directions. The shock increases of relative prices of energy have triggered off a search for new production and consumption patterns that would reduce national dependence without hampering free trade. In the service sector long-lasting relative price changes have had profound impacts on the structure and size of that sector.

It is often assumed that there is a trend towards a shrinking of the industrial sector (including agriculture) and a widening of the private service sector.[64] This is true insofar as it concerns the current statistical definition of these sectors. But an increasingly large part of the service sector is related to the production of goods (distribution, insurance, banking, planning, etc.) rather than directly to consumers. Considered from this point of view, there is a continuing and increasing dominance of the goods production sector.

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[62] cf. Tibor Scitovsky: "Can capitalism survive? An old question in a new setting", *American Economic Review*, March 1980 (R. T. Ely Lecture).

[63] Ira Kaznelson: "Accounts of the Welfare State and the new mood", *American Economic Review*, May 1980.

[64] The standard reference is Daniel Bell, *The Coming of Post-industrial Society, A Venture into Social Forecasting*, New York, 1973.

The directly household-related part of the private service sector has been shrinking because of the relative increase of its prices (productivity increases slowly in this sector). The consumption of personal services by households has been declining particularly in higher income brackets. Capital goods, on the other hand, have rapidly increased their share of private consumption. This tendency towards self-service in the household sector is likely to continue.[65]

Services rendered by the public sector also tend to become more scarce. This tendency is reinforced by the present efforts in many countries to reduce budget deficits. An offsetting privatization of public sector services is hardly likely as, on the contrary, private personal services are becoming more expensive and scarce. There is, on the other hand, no reason to expect that households will not continue to give high priority to an increased supply of services, particularly of social services. One solution seems to be a continuing widening of the service sector beyond the formal arrangements of the private market sector and the public sector. To the extent that policies can influence such a development it might be a means of alleviating the public sector, of reducing unemployment and increasing the independence of the national economy. There are thus reasons why decisions about the size and nature of the informal sector should enter directly—and rank high—in economic planning and policy making.

The informal sector has also been called the "parallel" economy, the "hidden" economy, and the "twilight" economy. A useful distinction might be drawn between the observed and the unobserved economy, the latter having two components: the unobserved market sector and the non-market economy.

The main attention of the public and of policy makers has been given to the *unobserved market sector* which is mainly illegal. It has thus been given names such as the "underground" economy, the "black" economy, the "clandestine" economy, etc. The size of this sector can in principle be estimated from discrepancies between the expenditure estimates in the national accounts and essentially independent figures for gross income from tax returns. Other approaches have also been used and the estimates tend to vary considerably.[66]

The majority of workers in clandestine employment are the formally unemployed, immigrant workers, pensioners, housewives and students. The reasons given for the activities vary. Overriding are, of course, the financial incentives of avoiding high social security contributions and high taxes; but also important are the avoidance of minimum wage laws and other restrictions on entry to certain occupations, the fuller use of professional qualifications, desire for independence of work, boring and repetitive work in alternative occupations, etc. A special category is young people who do not want to be tied down by regular work. The employers' reasons for hiring clandestine workers are excessive social security costs, restrictions on overtime, recruitment constraints, equal pay laws, etc.

The magnitude of the *non-market (unobserved) sector* can be arrived at by imputing values to non-market consumption and capital accumulation in the unpaid household and educational sectors. This sector may (in the United States) be as big as the entire observed private sector.[67] It has been estimated for Sweden that the household sector, from a restricted economic point of view, amounts to at least one-third of the private market economy.[68] The total unobserved sector seems to have been growing parallel with the observed sector in the 1950s and 1960s.[69] (This was also the period when the descriptive and predictive power of traditional macroeconomics reached a high level.) Later on the unobserved sector grew much faster, with serious implications for conventional analysis. Official statistics will tend to understate growth in the economy as a whole and consequently overstate unemployment.

The growth of the informal sector can partly be seen as a reaction to the upheavals and deficiencies of the formal sector. The increased competitiveness of the informal *market* sector is, as already noted, a consequence of growing tax and social security burdens in a period of slow growth and high inflation. The "legalisation" of the informal market sector will largely depend therefore on raising tax thresholds and reducing social security contributions, particularly those of employers, but the removal of many restrictive practices and a reduction of governmental "red tape" are also important. However, to a large extent the problems of the informal sector are the more general ones of all small and medium-size enterprises and of the self-employed. There is an increasing awareness of the problems of these enterprises (disproportionate tax burdens, difficulties of raising unsecured bank loans and other finance, and so on) and in a number of countries special commissions of enquiry (France and the United Kingdom, for example) have led to legislative and other proposals in this regard. The potential of small and medium-size enterprises as a source of increased employment is frequently stressed (perhaps over-optimistically), as are their attractions in providing for many people a more congenial working environment where the incidence of labour unrest and of strikes is generally much less than in larger enterprises. By making it easier to establish small enterprises and by removing bureaucratic and other non-market obstacles to their growth, governments will not only widen the choice of work-environment available but will also contribute to reducing some of the inflexibility that, as noted above, appears to have increased in recent years.

The growth of the informal *non-market* sector is perhaps largely due to the growth of personal income per head and increasing leisure time, both of course the result of the post-war growth of the formal sector. One aspect of this growth has already been noted: the rising relative price of marketed personal services and their consequent substitution by capital goods (consumer durables) in the private home. However, the machines still require human labour time to operate them and this time must therefore be switched from the formal to the informal sector. Another part of the stock of consumer durables—television, video machines, hi-fi, etc.—also requires an increase in leisure time in order to be "consumed". All these, as well as other factors (the search for self-fulfilment, or simply a change from the office and the factory, in gardening, do-it-yourself, etc.), raise the opportunity cost of working in the formal market sector and hence reduce the demand for further work there (at least on the part of those who are already employed in it).

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[65] Jay Gershuny: *After Industrial Society: The Emerging Self-Service Economy*, Macmillan, 1978.

[66] Edgar L. Feige: "The growth of the unobserved sector—the problems of the 1970s in a new light", *Ekonomisk Debatt*, No. 8, Stockholm, 1980 (in Swedish); Raffaele de Grazia: "Clandestine Employment: A problem of our times", *International Labour Review*, No. 5, September-October 1980; and Kerrick Macaffee (Central Statistical Office): "A Glimpse of the hidden economy in the National Accounts", *Economic Trends*, February 1980. (This article contains an illuminating discussion on the definitional and statistical problems involved in the topic.)

[67] See e.g. John W. Kendrick: "Expanding imputed values in the national income and product accounts", *Review of Income and Wealth*, December 1979.

[68] Lars Ingelstam: *The Value of Work and the Use of Time* (in Swedish), Stockholm 1980.

[69] Feige, *loc. cit.*

Another and increasingly important aspect of the non-market informal economy is the growing number of people engaged in voluntary work in one form or another. This is often an adjunct to services provided by local authorities, but it helps to create flexibility in meeting the particular needs of local communities, as well as providing a means for individuals to participate more in the life of their community. In the United Kingdom the General Household Survey in 1977 estimated that 10 per cent of the adult population participated in social and voluntary work, and between 1971 and 1979 the total membership of a sample of eleven voluntary and charitable organizations rose by over 4 per cent a year (from 2.2 million to 3.0 million). There has also grown up, mainly in the 1970s and in response to the growing complexities of government regulations, as well as the stresses of modern urban and industrial life, a network of advisory and counselling services which are mainly staffed by volunteers from the local community. In many countries further examples of such co-operation include collective housing and household services, new transport arrangements, repair and maintenance, child care and help for old people.[70] These non-market activities are thus already playing an important role in providing services, particularly at the local level, and it would be valuable to explore ways in which their future growth may be encouraged or, rather, to identify the obstacles which prevent or hinder their spontaneous growth in response to local needs. But at the present time a major priority should be to try and avoid public expenditure cuts which would kill off many of these activities.

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[70] Several of these ideas are developed more fully in the final report from the UNEP/ECE Regional Seminar on *Alternative Patterns of Development and Lifestyles*, Ljubljana, December 1979.

CHAPTER 2

RECENT ECONOMIC DEVELOPMENTS IN SOUTHERN EUROPE

INTRODUCTION

1980 was a very unfavourable year for the south European countries. The growth of output was close to zero in three of them (Greece, Spain and Turkey), decelerated rapidly due to restrictive policies in Yugoslavia, and only recovered to a fairly satisfactory rate in Portugal.

Leaving aside Yugoslavia, where the trend and cycle of economic growth is very different from that in the other south European countries, it can be seen that while the combined GDP of industrial western Europe increased in 1979 and 1980 by 3.5 and 1.5 per cent respectively, the corresponding growth rates in the four major south European countries were only 1.5 and 0.8 per cent. The difference is more dramatic for gross fixed capital formation.[71]

Inflation rates continued to be high and worsened significantly in Turkey, Yugoslavia and Greece, with average price increases of over 85, 30 and 20 per cent respectively. The Iberian countries were somewhat more successful in so far as Portugal's inflation decelerated and in both the level of inflation (16-17 per cent) began to approach that of their main industrial trade partners.

The combined current balance of payments deficit of these countries increased from $5.1 billion in 1979 to about $11.5 billion in 1980, equivalent in terms of GNP to 1 and 3 per cent respectively. These data are, however, strongly influenced by developments in Spain where there was a swing (of $6.3 billion) in the current balance from a surplus to a deficit. The deterioration in the current balance was also significant in Portugal and Turkey, while in Greece there was no substantial change and in Yugoslavia the improvement was largely due to a decline in the volume of imports.

The labour markets in these countries continued to be precarious during 1980. The only country in which employment creation was enough to cause a minor decline in unemployment was Portugal. In Greece and Yugoslavia employment increased in the modern sector but was insufficient to check the continuing rise in unemployment. In Spain and Turkey, unemployment rates of 12 and about 20 per cent coincided with falling employment in the non-agricultural sectors.

In practically every field of economic policy the south European countries face specific difficulties compounded in many cases by social constraints, and structural rigidities and imbalances have made the problems of adjustment to a new world economic climate particularly painful. Recent data suggest that the smaller, more open economies, where heavy industry, basic metal and metal-using sectors are relatively small (Greece and Portugal), have somewhat less serious problems than those with either a more developed metal sector (Spain) or with a high-cost, state-owned industrial sector (Turkey). Moreover, foreign account bottlenecks are again large and in several cases restrictions on demand had to be tightened to prevent a further worsening of the balance of payments.

Prospects for 1981 do not seem particularly bright as projected growth rates for four of them remain within a modest range of 2.5 per cent to 3.5 per cent; the only exception is Portugal where a rate of growth of 5 per cent is forecast.

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[71] See chapter 1 of this *Survey*, p. 2.

1. OUTPUT, DEMAND, EMPLOYMENT AND PRICES

OUTPUT

With the exception of Portugal output growth in every other major south European country decelerated in 1980 to a very low rate amounting to virtual stagnation (tables 2.1.1 and 2.1.2).

In general agricultural output increased, except in Yugoslavia. Industrial output probably declined in Turkey and virtually stagnated in Greece and Spain, while in Portugal it expanded by over 1 per cent, still less than at the rate prevailing between 1970 and 1973. The slower growth of the service sectors has been an important factor in the lower growth rate of total output in Greece and Spain.

In *Greece* gross domestic product (at factor cost) is provisionally estimated to have expanded by less than 1½ per cent [72] compared with an increase of 3.6 per cent in 1979 and an average annual rate of growth of 3.6 per cent during the period 1974-1978 and of 8.4 per cent in 1970-1973. Agricultural output increased by 9.5 per cent in 1980, following a decline of 5.0 per cent in 1979. Industrial output increased in 1980 by 1.0 per cent following an increase of 5.5 per cent in 1979. Manufacturing grew little (0.5 per cent) during 1980 compared with an increase of 5.2 per cent in 1979 and an average annual growth rate of 5.8 per cent during the 1975-1978

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[72] *"Epiloghe"*, December 1980.

TABLE 2.1.1

Annual changes in output and prices, by sector in selected south European countries

(*Per cent*)

	Average		*Year*		*Average*		*Year*		
	1970-1973	*1974-1978*	*1979*	*1980*	*1970-1973*	*1974-1978*	*1979*	*1980*	
	Greece				*Portugal*				
Changes in output at constant prices									
GDP at factor cost	8.4	3.6	3.6	1.4	9.2	2.6	3.5	4*	
of which:									
Agriculture	4.5	1.8	−5.0	9.5	1.7	−3.0	5.0	1*	
Industry	13.1	4.5	5.5	1.0	10.5	2.6	4.0	4.5*	
Construction	7.3	−0.5	5.9	−14.2	10.5	1.8	−1.8	10*	
Services	8.0	4.7	4.6	2.3	10.5	4.6	3.5	3.5*	
Price changes GDP deflator	8.1	14.7	17.8	20.3	5.7	19.9	23.1	17*	
	Spain				*Turkey*				
Changes in output at constant prices								*A*[a]	*B*[a]
GDP at factor cost	6.8	3.3	1.0	1.1	6.1	7.1	1.0	−1.4	2.0
of which:									
Agriculture	3.4	2.8	−4.3	7.0	1.2	6.0	3.4	2.0	3.0
Industry	9.9	3.2	1.7	1*	7.9	8.8	−4.0	−11.7	1.1
Construction	4.1	−1.9	−2.5	−1*	5.6	6.5	4.2	1.4	1.4
Services	6.0	4.4	2.0	0.5*	8.6	7.0	1.9	1.4	2.0
Price changes GDP deflator	8.3	19.1	15.3	17*	17.0	26.4	66.6	85.5	87.6

Sources: OECD, *National accounts of OECD countries*, 1961-1978, vol. II; ECE secretariat estimates; and national statistics as follows: *Greece*—Bank of Greece, *Monthly Statistical Bulletin. Portugal*—Banco de Portugal, *Relatório do conselho de administração, gerência de 1978*; *idem* 1979. *Spain*—Instituto Nacional de Estadistica, *Contabilidad nacional de España*, Años 1964-1976, 1977 provisional y avance de 1978; *idem*, Años 1970-1977, 1978 provisional y avance de 1979. *Turkey*—Ministry of Finance, *Yillik Ekonomik Rapor 1978*, 1979, 1980; OECD Economic Surveys, *Turkey*, November 1978.

[a] A = State Institute of Statistics.
B = State Planning Organization.

TABLE 2.1.2

Supply and use of resources, and prices, in selected south European countries

(*Annual percentage change*)

	Average		*Year*		*Average*		*Year*	
	1970-1973	*1974-1978*	*1979*	*1980*	*1970-1973*	*1974-1978*	*1979*	*1980*
A. *Supply and use of resources* (at constant prices)		*Greece*				*Portugal*		
GDP at market prices	7.8	3.7	3.8		8.7	2.5	3.7	3.7
Imports of goods and services	15.4	2.3	9.0		10.1	−1.4	5.8	8
Total resources (GDP + Imports)	9.0	3.4	..		9.1	1.5	4.2	4.8
Domestic demand (GDP + Imports—Exports)	8.2	2.8	4.4		9.5	2.4	−0.1	3.1
Gross fixed capital formation	8.9	−1.2	4.9	−8.5	11.1	−0.3	−1.6	6
Private consumption	7.1	4.5	2.5	−1.0	7.9	2.7	0.6	2.5
Public consumption	5.8	7.8	4.6	1.5	7.5	9.7	5.2	2.0
Exports of goods and services	17.6	8.1	7.3		7.7	−2.2	27.4	12
B. *Prices*								
Wholesale prices — total	9.3	16.3	21.0	28.3[a]	5.6	24.3	29.8	6.0[b]
Consumer prices — total	6.5	15.7	19.0	24.7[b]	10.5	22.8	24.2	16.6
— food	8.4	16.3	18.8	27.1[b]	8.2	26.8	28.0	10.4
		Spain				*Turkey*		
A. *Supply and use resources* (at constant prices)								
GDP at market prices	6.3	3.2	0.8	0.5	6.2	6.7	0.7[c]	0.8[c]
Imports of goods and services	12.0	2.3	11.1	5.0	17.6	−0.3	..	..
Total resources (GDP + Imports)	7.0	3.0	2.2	1.7	7.1	6.0	..	..
Domestic demand (GDP + Imports—Exports)	6.3	2.4	1.2	0.8	6.6	6.4	0.6	—
Gross fixed capital formation	7.6	−0.1	−2.0	−0.5	8.6	6.2	−10.2	−6.9
Private consumption	6.5	3.0	1.2	0.8	5.8	5.5	4.2	2.3
Public consumption	5.5	5.7	3.8	3.5	6.4	8.9	−2.8	6.5
Exports of goods and services	14.8	8.4	10.0	3.0	15.5	3.3	..	..
B. *Prices*								
Wholesale prices — total	6.1	15.4	10.9	..	15.3	26.4	63.9	109.4
Consumer prices — total	8.4	18.9	15.7	15.5	13.5	26.4	62.0	104.6[a]
— food	8.3	18.6	10.2	9.0	13.2	28.5	58.9	113.4[a]

Sources: National accounts of OECD countries, 1961-1978, vol. II; national statistics; ECE *Short-term Economic Indicators*; and ECE secretariat estimates.

[a] January-October. [b] January-November. [c] Gross National Product.

period. During the period January-September the production of consumer goods declined by 2.9 per cent compared with an increase of 8.5 per cent during the same period of 1979. The decline was mainly due to textile output which declined by 4.3 cent. However, production of durable goods increased by 14.6 per cent compared with 1.0 per cent during the first nine months of 1979. The major factor in this growth has been the increase in production of electrical equipment and machinery. Production of capital foods rose by 2.6 per cent, whereas it had expanded by 7.8 per cent during the first nine months of 1979. A large fall (of 14.2 per cent) is estimated for 1980 in the output of the construction sector, which increased by 5.9 per cent in 1979. This was the result of a lower level of private housing construction and also of reduced public investment as a part of the restrictive economic policy.

The data at present available on the economy of *Portugal* refer mostly to the first half of 1980; therefore the estimates shown in tables 2.1.1 and 2.1.2 should be regarded as rough orders of magnitude. The growth of GDP at factor cost in 1980 was probably about 4 per cent. Most of the major sectors of output increased at rates roughly similar to those attained in 1979 but the structure of demand changed compared with 1979, with foreign demand weakening and domestic demand recovering. The first estimates of agricultural output had forecast a sizeable increase of about 5 per cent. The autumn crops, however, have proved to be very bad, so it seems likely that agricultural output may have remained at virtually the same level as in 1979. Manufacturing production continued to expand during the first half of the year but at a declining rate: the year-on-year increase was 10.6 per cent during the first quarter and 5.3 during the second. It would seem, however, that as in other western countries there was some acceleration during the fourth quarter. Within manufacturing the most rapidly expanding branches were food and drink, and textiles (both favourably influenced by consumer demand), non-metallic minerals (stimulated by the recovery of construction), transport equipment (due to new capacity coming into operation), and machinery, stimulated by the recovery in demand for investment goods. The quarterly enquiry for manufacturing in the second quarter of 1980 shows, however, a sharp reduction of total demand (particularly of foreign demand) which had increased slowly but steadily from the second quarter of 1978. Even if the level of production remained stable during the second half of the year, it seems likely that total manufacturing output will have risen by around 4 per cent. Moreover the weakening of demand in the third quarter was mainly in intermediate and consumer demand and these seem to have picked up during the last quarter of the year. Available indicators (output of cement, structural steel and other building materials) point to a clear recovery of the construction sector stimulated by the recovery of investment. For the year as a whole construction output in 1980 may have increased by nearly 10 per cent compared with a decline of 1.8 per cent in 1979. An increase of over 50 per cent in the number of tourists arriving during the first half of the year, as well as other indicators for the transport, trade, and government sectors indicate that, for the service sectors as a whole, the increase in output may have been equal to or slightly below that in 1979.

There are not yet any official estimates on the evolution of the main sectors of output and demand in *Spain* [73] during 1980. It is, however, clear that the growth of output has remained very limited, probably around 1.0 per cent and that nearly half of this growth has been due to an exceptionally good agricultural year. Recent official estimates are that total agricultural output increased in 1980 by 7 per cent, with particularly large increases in cereal production (30 per cent), wine (70 per cent) and citrus fruit (11 per cent). Producer prices in this sector increased very little and contributed significantly to the slowing down of consumer prices. The industrial sector seems to have contributed very little, if anything, to the total growth of GDP: most of the available estimates range from zero to 1 per cent growth. The index of industrial production during the first quarter of 1980 was 2.8 per cent above that for 1979, but it stagnated in the second quarter and probably declined slightly during the third. A small recovery might have taken place during the last quarter due to a minor revival in the demand for consumer goods. Within the industrial sector it seems that there was a moderate increase in mining output of perhaps 3 to 4 per cent; public utilities grew by 4 to 5 per cent and manufacturing output [74] probably remained at about the same level as in 1979. Within manufacturing the most depressed sectors continue to be basic metals and metal-working in general, but demand also weakened sharply in 1980 for some consumer goods industries, such as textiles and clothing. The machinery producing sectors are in general very depressed, particularly non-electrical machinery. Demand for transport material has also weakened in spite of some increase in the order-books of shipyards, which could be reflected in higher production in 1981. Indicators concerning the construction sector (cement consumption, building of subsidized housing) point to a small decline or, at best, stagnation of output in 1980. Employment in this sector declined at the end of the first half of 1980 by 5 per cent (on a year earlier) and unemployment increased by 39 per cent, bringing the rate of unemployment in the sector to over 22 per cent of its work force.

Data for the service sectors, which account for 51 per cent of GDP, are insufficient to make a reliable estimate of output growth in 1980. Employment in services declined between the first halves of 1979 and 1980 by nearly one per cent, in spite of an increase of 3.8 per cent in the number of salaried workers. However, it should be recalled that in 1978 the output of these sectors expanded by 3.7 per cent in spite of a reduction in employment of 0.6 per cent: thus a small increase in output cannot be ruled out for 1980.

Problems inherent in calculating the national accounts in *Turkey* have been aggravated further this year by a three digit inflation rate and differences in forecasts for the last quarter. According to the State Institute of Statistics (SIS), GDP declined by 1.4 per cent in 1980, while according to the State Planning Organization (SPO), which assumes a sharp economic recovery during the fourth quarter, GDP growth increased to 2.0 per cent from 1 per cent in 1979. The main difference between these two estimates lies mainly in the estimated growth rate for industry. Since 1977, this sector has had to put up with shortages of imported inputs due to foreign exchange bottlenecks, energy shortages, and demand restricting measures. Tight monetary policies introduced in January 1980 further increased the liquidity shortage and depressed domestic demand, and a series of strikes during the summer further decreased capacity utilization. After September 1980, energy bottlenecks were eased, import transfers were made without delay, and the strikes were ended. In addition to relieving some of the supply constraints, this change in the social and economic situation reduced uncertainty. Production started to increase by the end of September, but domestic demand, due to a fall in real wages and the credit squeeze, did not increase as expected and there was involuntary stock accumulation.[75]

While industrial production declined, output in every other major sector, including agriculture, expanded less than in 1979. Due to floods in the south and drought in eastern Anatolia, cereal production grew by only 1.2 per cent and was 1 million tons below expectation.[76] The olive harvest increased by almost 145 per cent and tobacco production by 7 per cent. Hazelnut production fell by 20 per cent, but all other agricultural products remained at 1979 levels. Within the industry sector, economic austerity measures and strikes hit the manufacturing industries hardest. Except for chemicals, capacity utilization dropped sharply in all major branches of manufacturing. Average capacity utilization was around 40 per cent up to mid-September, that is, almost 15 per cent or 7 points lower than in 1979. After September, capacity utilization increased due to the easing of some of the supply constraints. However, as mentioned above, because of the credit squeeze, accelerating inflation, and depressed domestic demand, the recovery was not strong.[77]

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[73] According to estimates of the National Statistical Bureau, released in March 1981, GDP at factor cost increased in Spain in 1980 by 1.5 per cent in real terms. Agriculture grew 9 per cent; industry 1.1 per cent; and services 1.3 per cent; construction fell 4 per cent.

[74] Assuming a good fourth quarter, manufacturing output might at best have risen by one per cent over 1979.

[75] As official estimates based on more recent data are not yet available, table 2.1.1 shows both SIS and SPO forecasts. These two forecasts should be regarded as the upper and lower limits of economic growth in 1980.

[76] In addition to the weather, fertilizer consumption dropped by 35 per cent due to a fourfold price increase at the beginning of the year: this is estimated to have decreased wheat production by 750,000 tons.

DEMAND

The most common features of the development of demand in the south European countries in 1980 are a weakening or decline in gross fixed capital formation (except in Portugal) and a deceleration in the growth of external demand (except for Turkey and Yugoslavia). Private consumption weakened in all the major countries except Portugal.

Because of restrictive policies introduced to restrain inflation and limit the current account deficit, private consumption declined slightly in *Greece* in 1980. Public consumption increased slightly but not enough to offset the decline in private consumption. Following a relatively high annual rate of increase between 1975 and 1979, gross fixed capital formation declined by an estimated 8.5 per cent in 1980. Private investment declined by 9.5 per cent compared with an increase of 4.8 per cent in 1979; public sector investment also declined by 6.5 per cent following a rise of 5.3 in 1979; and investment in housing fell by approximately 13 per cent, after an increase of 8 per cent in 1979. After increasing by 12.6 per cent in 1978 and by 7.3 per cent in 1979, foreign demand provided little or no stimulus to Greek output growth in 1980.

The data available on the changes by broad sectors of demand for *Portugal* in 1980 derive from official estimates based on data for the first six to nine months. Exports of goods and services continue to be the most dynamic element in total demand, with an expansion of 12 per cent in real terms. An increase of 2 to 3 per cent in private consumption was the result of a number of mutually reinforcing factors. Real wages, which had declined for three consecutive years (8.1 per cent in 1977, 4.4 per cent in 1978 and 3.5 per cent in 1979), increased in 1980 by at least 3-4 percentage points, and employment rose by 1 per cent. Agricultural incomes may have increased less due to a deterioration in the terms of trade of the agricultural sector, but it would seem that during the first half of the year they actually increased and thus had a favourable influence on total consumption. The extension of unemployment compensation and income transfers towards social groups with a higher than average propensity to consume also probably influenced total consumer demand. It was also stimulated by a substantial increase in emigrant workers' remittances, influenced by new fiscal and financial incentives which partly compensated for the negative effects of the upward adjustment of the exchange rate in February 1980. Public consumption is expected to increase somewhat faster than forecast at the beginning of 1980 (1 per cent compared with 0.5 per cent). Although the expected budget deficit has been reduced by 12 per cent, partial data suggest an increase in public consumption of perhaps 2 per cent.

The most important change in the pattern of demand in Portugal in 1980 was the recovery of gross fixed capital formation. After a decline of 1.6 per cent in 1979 it is estimated to have increased by 6 per cent in 1980. Apart from the recovery of business confidence, several factors have played a role and in particular the redistribution of income in favour of profits.[78] The influence of foreign direct investment has also been far from negligible. Direct foreign investments authorized in the first ten months of 1980 were three times larger (in current escudo values) than those in the same period of 1979. Public investment probably expanded less than private, falling short of the 1980 forecasts of 5.5 per cent growth for the Administrative Public Sector and 6 per cent for public enterprises; authorized expenditure during the January-August period was 7 per cent below that for the same period of 1979. Data on stocks are scanty but most indicators show that, after declining during the second half of 1979, they increased during the first half of 1980. For 1980 as a whole a moderate increase seems the most likely outcome.

Official data concerning the evolution of the main sectors of demand in Spain in 1980 are not yet available for the year as a whole.[79] It seems clear, however, that the main changes are the deceleration of foreign demand from an increase of 11 per cent in 1979 to around 3 per cent in 1980, and perhaps a reversal of the stock cycle as stocks had increased rapidly in 1979 partly stimulated by the revaluation of the peseta. Private consumption probably increased slightly due to the fact that real salaries grew by 1.5 per cent. Although unemployment continued to increase rapidly, its negative effects on consumption were dampened by greater social security payments. Moreover, the propensity to save probably declined in 1980. But even when these factors are taken into account, the increase in private consumption in 1980 was even less than the rise of 1.2 per cent in 1979. It seems likely that public consumption continued to increase at about the same rate as in 1979 (about 3.5 per cent). The increase of employment in the public sector and of the consolidated public sector deficit in 1980 (to some 3.0 per cent of GDP compared with 2.7 per cent in 1979), coupled with the apparent small increase in public sector investment, support this view.[80]

After declining for four consecutive years, gross fixed capital formation probably stagnated in 1980 in spite of the incentives granted during the last three years. Together with the growing level of unemployment, the sluggishness of investment is one of the most negative features of the Spanish economy. Gross fixed capital formation in real terms in 1980 was 10 per cent below that in 1974 and the investment ratio declined from 26.3 in 1974 to about 20 per cent in 1980. The composition of gross fixed capital formation, however, seems to have changed in 1980 as investment in machinery and equipment probably expanded,[81] while investment in construction continued to fall. The latest (fourth quarter 1980) enquiry on investment plans in industry, carried out by the Ministry of Industry, shows an improvement in investment plans (mostly in chemicals, petrol derivatives and extractive industries) and it is significant of the rationalization character of investment plans that the two most frequently mentioned reasons for increasing investment were the "replacement of old equipment" and the "need to reduce costs", expansion of capacity being placed only third. Unlike the experience of 1978 and 1979 the public sector has given a net stimulus, public investment probably having expanded in real terms.[82]

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[77] According to data for the first 10 months, pig-iron, cement and crude oil production dropped by 40 per cent, 11 per cent and 19 per cent respectively. Other branches with significant falls in production were non-ferrous metals, paper and printing. On the other hand, output of petroleum products and chemicals rose: the biggest increase was in nitrogen fertilizer which rose by almost 180 per cent in the first seven months of the year.

[78] Although the data should be interpreted only as rough orders of magnitude, the Bank of Portugal has estimated that the share of property and enterprise income in total national income increased from 35.7 per cent in 1977 to 38.5 per cent in 1979 and corporate saving from 2.7 to 4.2 per cent of national income. These shares are close to those prevailing before 1974.

[79] The budget presented to Parliament at the end of September included some forecasts for the year based on data for six months. The secretariat estimates in table 2.2.2 adjust these data in view of trends during the second half of the year. The budget data are private consumption (+0.2 per cent); public consumption (+3.0 per cent); gross fixed capital formation (−1.0 per cent); domestic demand (+0.8). GDP at market prices (+0.5 per cent) remains unaltered.

[80] According to estimates of the Bank of Spain, gross fixed capital formation by the Public Administrations declined by 13.6 per cent in 1978 and by 4 per cent in 1979.

Although external demand lost much of its dynamism in 1980 it continued, with a real growth of 2 to 3 per cent, to be the most expansive element in total demand. As was pointed out above, domestic demand for imported goods and services continued to expand by about 5 per cent. Fluctuations in the import propensity of the Spanish economy, largely a result of speculative movements and currency realignments, have been extremely sharp. Thus, in 1977 and 1978 GDP grew by 6 per cent and imports declined by 6.5 per cent, but in the period 1979-1980, GDP expanded by 2 per cent while imports grew by over 15 per cent.

Separate estimates for external and domestic demand for goods and services in 1980 are not yet available for *Turkey*, but it seems that the most rapidly growing sectors of demand were stocks, public consumption and exports. Demand for imported goods and services also expanded very fast, and current borrowing from abroad, which had declined from 7 per cent of GNP in 1977 to 2 per cent in 1979, climbed again to 4.9 per cent in 1980.

Total domestic demand remained stagnant in spite of a significant increase in stocks and an increase of 3 per cent in total consumption. The increase in stocks was mostly in finished consumer goods, particularly textiles, clothing and consumer durables. Private consumption decelerated from an increase of 4.2 per cent in 1979 to 2.3 per cent in 1980, mostly under the influence of falling real wages. Public consumption, which declined in 1979 (by 2.8 per cent), increased by 6.5 per cent in 1980.

Gross fixed capital formation, which had fallen in 1979 by 10 per cent, declined again in 1980 by nearly 7 per cent. As in 1979, private fixed investment fell almost twice as fast as that in the public sector (9.6 per cent and 4.9 per cent respectively). According to provisional estimates based on 11 months' data, private investment in manufacturing fell by 28.5 per cent. There were sharp falls in all branches except drink, petroleum products and transport equipment. While fixed investment fell in industry, it increased in agriculture. Due to budgetary difficulties and limitations on credit expansion, public sector fixed investment was below the target growth rates in all sectors.

EMPLOYMENT AND EARNINGS

There are few common features in the employment situation of the major south European countries in 1980. In two countries (Spain and Turkey) the number of unemployed continued to increase and the number of employed declined, even in the non-agricultural sectors. In Greece and Yugoslavia employment in the non-agricultural sectors increased but not sufficiently to offset an increase in unemployment. Only in Portugal did the number of unemployed decline.

In *Greece* the slowdown of economic activity resulted in a lower rate of increase in employment. According to the National Statistical Service survey in urban and semi-urban areas, employment in the non-agricultural sector of the economy increased by approximately 2.0 per cent compared with 2.5 per cent in 1979. Employment in industry increased by an estimated 1.5 per cent in 1980 following an increase of 2.7 per cent in 1979. The unemployment rate, which provides only a rough indication of unemployment in the non-agricultural sector, is estimated to be around 2.5 per cent for 1980, as compared with 1.8 per cent in 1979 and an average of 2 per cent for the period 1975-1978. Average labour remuneration in the non-agricultural sector increased by 20.7 per cent in 1980, compared with 18.5 per cent in 1979. The changes in real terms are estimated at −3.4 per cent and −0.4 per cent respectively. Real wages in industry stagnated (compared with an increase of 1.2 per cent in 1979), while in services they seem to have fallen more rapidly than in other sectors.

Labour productivity declined in 1980 and this, together with the increase in wages and salaries as given above, resulted in increased labour cost per unit of output, both in the non-agricultural sector as a whole and in industry in particular. Labour costs per unit of output increased by 22.5 per cent in 1980 (compared with 15.7 per cent in 1979). The increase was more acute in the industrial sector if the semi-artisanal sector is excluded: thus, unit labour costs increased by 26.6 per cent, compared with 16.6 per cent in 1979, in enterprises of 10 and more employees. Productivity per man hour in these establishments declined by 0.5 per cent compared with an increase of 3.5 per cent in 1979 and 3.9 per cent in 1978.

According to the latest available enquiry, referring to the first half of 1980, employment in *Portugal* improved considerably in 1980, increasing by 2.3 per cent over the previous year while unemployment declined by 6.7 per cent. The increase in employment coincides with a small increase in male activity rates. The largest increases in employment were in construction (45,000) and public administration and defence (38,000). Employment in manufacturing increased very little (12,000) and there was a small outflow from agriculture (15,000).

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[81] The seasonally corrected index of industrial production shows some recovery from the last quarter of 1979 and the industrial enquiry of the Ministry of Industry suggests that production started to rise slowly from very low levels. Imports of investment goods also increased more than in 1979.

[82] Data on the execution of the Budget for January-November show an increase of 24 per cent for real investment and of 43 per cent for capital transfer payments. The 1980 budget target of increasing capital more than current expenditure seems to have been missed as current payments increased by 42 per cent and capital payments by 38 per cent.

Unemployment continued to increase very rapidly in *Spain* throughout 1980. Data for the third quarter of 1980 show that the unemployment rate for workers aged 16 and over increased from 8.8 per cent of the active population in the third quarter of 1979 to 11.7 per cent in the third quarter of 1980. The number of unemployed increased by 32 per cent and at the end of the third quarter of 1980 stood at 1.5 million. The increase of 362,000 in the estimated number of unemployed is exceeded by the reduction of 421,000 in the employed population.[83]

The statistics available for wages show that, in the first ten months of 1980, average earnings for persons employed, subject to revision of collective working contracts, rose by just over 15 per cent, and that agricultural salaries increased during the first three quarters of 1980 by nearly 14 per cent. Rises in average hourly earnings in industry, construction and services, during the first half of 1980, were some 18 per cent higher than a year earlier and there was a 19 per cent increase (June-August 1980/1979) in the construction sector. Official estimates indicate that, with productivity growing by 3 to 4 per cent, wage costs per unit of output are increasing by 10 to 11 per cent, that is, distinctly more slowly than prices. This implies a sizeable recovery in the gross operating surplus of the entrerpise sector, but the uncertainty of the wage statistics throws some doubt on this conclusion.

In *Turkey* average unemployment between January and July 1980 was 50 per cent higher than the corresponding period in 1979, which implies an unemployment rate of around 17 per cent in 1980. However, this refers only to insured wage and salary earners in big urban centres which excludes first-job seekers and the unemployed in the rest of the country. Unofficial estimates put the unemployment rates above 20 per cent. In the last few years there has been increased emigration of Turkish workers to the Middle East and Libya.[84] The number of these emigrants is nowhere near as high as the number in western Europe, but they are mostly skilled and semi-skilled workers who are already scarce in Turkey.

PRICES

Inflation in the south European countries during 1980 ranged between around 17 per cent in both Iberian countries to over 85 per cent in Turkey where, for the third consecutive year, prices continued to climb very rapidly. In an intermediate position are Yugoslavia and Greece, with average increases of about 30 per cent and 20 per cent respectively.

In Greece the average level of consumer prices rose by an estimated 25 per cent compared with 19 per cent in 1979. Wholesale prices increased by approximately 30 per cent during 1980, compared with 21.0 per cent in 1979 and 10.3 per cent in 1978. Labour costs per unit of output and exchange rate depreciation have played a much greater role in 1980 than in 1979. The influence of higher import prices and increased profit margins seems to have been roughly the same as in 1979. The contribution (direct and indirect) of the increase of oil prices is estimated at 4.5 per cent in 1980 compared with 5.3 per cent in 1979.

In *Portugal* the projections for 1980 included a rise of 18.5 per cent in the implicit deflator of GDP compared with an increase of 21.7 per cent in 1979. In fact prices increased less than expected and the rate of increase tended to slow down throughout the year, as is shown by the year-on-year changes in the quarterly index of consumer prices which was 22.7 per cent higher in the first quarter, 17.3 per cent in the second, 15.3 in the third and 12.2 in the fourth. For the year as a whole, the average increase in consumer prices (excluding rent) is 16.6 per cent and the GDP deflator should be somewhat higher, perhaps by one percentage point.

The deceleration of inflation in 1980 is due essentially to two factors. First and most important was the good agricultural year; the annual index for the food and drink group increased by 10.4 per cent, a sharp contrast with 1979 when the food and drink component had increased faster than the average (by 28.0 and 24.2 per cent respectively). The other less important factor was the slower rate of depreciation of the escudo which helped to dampen the very rapid increase in import prices.

Consumer prices in *Spain* increased during 1980 at about the same rate as in 1979, namely 15.5 per cent. The increase in prices decelerated up to the middle of the year and accelerated again during the last quarter. As in 1979 the food element increased (influenced by good harvests) significantly less than the non-food components. The implicit price deflator of GDP is not yet available but the increase should be around 17 per cent higher than the 15.3 per cent rise in 1979.

The already high rate of inflation in 1979 in *Turkey* increased further during 1980. As measured by the GDP deflator the increase was over 85 per cent compared with 67 per cent during 1979. For the period January-September 1980 the consumer price index (Ankara) was almost 124 per cent higher than a year earlier. The food component increased somewhat less, 110 per cent. The increase in the official wholesale price index also reached an unprecedented level in 1980 with an average year-on-year increase of 108 per cent in the period January-September 1980. Except in January, the year-on-year change in the monthly wholesale price index was over 100 per cent. The annual rate rose to 133 per cent in February following the upsurge in prices due to the January measures (which substantially increased public sector prices). The rate of increase then slowed down, but in the period September-November there was a further sharp acceleration. The largest price increases were for industrial raw materials and semi-finished products, particularly during the first quarter. However, between August and October price increases were much higher in the food and feed group which pushed the growth of consumer prices to rates which had not been experienced even during the 1941-1942 period. The acceleration in the price indices was largely due to the rise in petrol prices and to currency devaluation.[85]

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[83] The exclusion of 14- and 15-year old workers from the active population enquiry (as from the second quarter of 1980), prevents a comparison of sectoral unemployment rates. For the second quarter of 1980 these rates were 5 per cent in agriculture and services, 7 per cent in industry and over 22 per cent in construction. The unemployment rate was much higher for the young, 34 per cent in the 16-19 age group and 23 per cent in the 20-24 age group.

[84] In 1980, 13,000 workers went to Saudi Arabia and Libya, bringing the total to 56,000.

[85] In January the Turkish lira devalued by 47.1 per cent and then, through a series of smaller adjustments, by an additional 27.7 per cent. The annual devaluation was 90 per cent.

2. TRADE AND PAYMENTS

The impact of the deterioration of the terms of trade of south European countries resulting from the increase in oil prices was felt by the majority of them in 1980. The combined current deficit of the five largest which had declined from $9.9 billion in 1977 to $2.9 billion in 1978, increased in 1979 to $5.1 billion and to $11.5 billion in 1980. In terms of GNP the increase between 1979 and 1980 was from 1 to 3 per cent. The combined figures are, however, strongly influenced by Spain whose current account deteriorated by about $6.3 billion in 1980. For the other four countries the current deficit changed little mainly because the Yugoslav deficit diminished due to restrictive policies.

The trade flows of these countries in real terms are very dissimilar and strongly influenced by the relative growth of domestic demand and foreign exchange fluctuations. Export volumes declined in real terms in Greece, decelerated in Spain from a growth rate of about 12 to 3 per cent and in Portugal from 27 to 10 per cent. In Turkey and Yugoslavia exports, which had fallen in 1979 (although very slightly in the latter), recovered in 1980, particularly in Yugoslavia where they rose by 9 per cent. In 1980 Portugal and Yugoslavia were the only south European countries whose share of world export markets increased. In real terms imports rose less or diminished in 1980. The only exception is Portugal where they grew by about 8 per cent. Imports declined, under the effect of restrictive policies, in Greece and Yugoslavia and recovered a little in Turkey where they had contracted severely in 1979. In Spain import growth decelerated from about 15 per cent in 1979 to around 5 per cent in 1980.

Having almost doubled in 1979 (from $955 million in 1978 to $1,883 million in 1979), the current account deficit of *Greece* increased in 1980 much less than initially expected and is estimated at about $2.2 billion. On the basis of cash payments data for the period of January to October it is estimated that a larger deterioration of the current account was avoided mainly because imports by the private sector remained roughly at the level of 1979 following an increase of 34 per cent during 1979, whereas the current value of imports of the public sector (to a very large extent imports of fuels) continued to increase at a high rate. The total expenditure on imports during 1980 is estimated at $11,100 million compared with $10,110 million in 1979. The deficit on fuel imports rose to about $2 billion in 1980 compared with $1,788 million in 1979 and $975 million in 1970.

Receipts from exports increased at a much lower rate in 1980 and were expected to amount to $4,100 million compared with $3,932 million in 1979. Thus the trade deficit widened by $822 million to reach $7,000 million; in 1979 it had increased by $1,839 million.

The surplus on invisibles increased from $4,296 million in 1979 to $4,750 in 1980 and covered 67.9 per cent of the trade deficit; in 1979 it had covered 69.5 per cent. Detailed data by commodity are only available for the first half of the year. These show that the expansion in the total current dollar value of exports (7.6 per cent) was mainly the result of manufactured goods (18.7 per cent growth), tobacco (15 per cent) and minerals and ores (51 per cent). There were declines in the dollar value of imports of capital goods (1.5 per cent) and consumer manufactures (19.5 per cent), food imports stagnated, and only for raw materials and fuel imports was there any increase. Total imports increased by less than 12 per cent in dollars.

The available trade data for *Portugal* cover only the first seven months of 1980. During that period imports increased by 51 per cent and exports by 39 per cent; as a result, the trade deficit (*c.i.f-f.o.b*) increased from 1.48 billion dollars in 1979 to 2.45 billion in 1980. The cover ratio declined from 57.5 per cent in the same period of 1979 to 53.1 per cent. Data for the first half of the year show only a relatively minor deterioration in the terms of trade (of 5 per cent): this is because the full effect of the latest increase in petrol prices had not yet been fully reflected in import prices, and the February revaluation of the escudo helped to hold down the rise of import prices in terms of national currency. During the first half of the year imports increased in volume by 14.7 per cent and exports by 13 per cent. It is expected that the growth of trade will have slowed down during the second half of the year (particularly for imports) and that for 1980 as a whole imports will have increased in volume by about 8 per cent and exports by 10 per cent. The deterioration in the commodity terms of trade for the full year is expected to have been relatively modest at 8 per cent. In volume the greatest increases in imports were in intermediate goods for industry and in transport equipment; the volume of agricultural imports increased less than the average (by 9.5 per cent) and machinery imports were up by 16 per cent in volume. The only decline in imports was for fuel imports. The largest increases in the volume of exports were for machinery and refined oil products, while textile exports stagnated and agricultural and food exports fell slightly. Mostly due to the effect of higher petrol prices, the value of imports from industrial western countries and the United States increased significantly less than average—only Italy and Japan improved their shares of the Portuguese market. Portuguese exports increased particularly rapidly towards Switzerland, the Netherlands and Spain; the only major falls were in exports to the centrally planned economies.

Provisional payments data for the first half of 1980 show an increase of the current deficit from $211 million in 1979 to $718 million in 1980. The official forecast for the full year is for a current deficit of about $800 million (compared with a $150 million surplus in 1979). This deterioration stems entirely from the trade balance since it is expected that emigrants' remittances could reach $3 billion—and gross tourist receipts $1.2 billion. Recent trends suggest that the expected improvement in services and transfers might well materialize, but the trade deficit could well exceed $4 billion in which case the current deficit (which, nevertheless, should be easy to finance) might be closer to $1 billion.

Customs-based trade data for *Spain* cover the first eleven months of 1980. According to these, which to a certain extent might still be affected by changes in recording methods and the labour unrest at the docks in July and August, the dollar value of imports has increased by 35.7 per cent and that of exports by 12.3 per cent on 1979. (The change between 1978 and 1979 for the same period, had been of 33.3 per cent for imports and 38.7 for exports.) As a result of these changes the cover ratio declined from 70.9 per cent in January-November 1979 to 58.6 per cent in 1980. The (*c.i.f-f.o.b*) trade deficit increased from $6.6 billion in 1979 to $12.8 billion in 1980, and it seems likely that, for the year as a whole, the deficit could rise from $7.2 billion in 1979 to around $13.5 billion in 1980. Nearly four-fifths of the deterioration of the trade deficit is the result of the increase in petroleum imports, the average price of which was around 75 per cent higher than in 1979, but the slow-down in exports also played a role.

Volume indices of trade are not yet available, but it is clear that there has been a severe slow-down in the growth of trade. The volume of imports, which had increased in 1979 by around 15 per cent, expanded in 1980 by about 5 per cent. Crude petroleum imports might have increased by nearly 3 per cent, food imports by 7 per cent and the rest by about 6 per cent. Import prices increased much more rapidly than export prices (by about 29 against 10 per cent), and thus the terms of trade deteriorated about 15 per cent, implying a decline in national income of over 2 per cent. In contrast with 1979, when export volume increased by about 12 per cent, the expansion in 1980 has been about 2-3 per cent, which is less than the growth of Spanish export markets. The Spanish exporting sectors thus appear to have borne in 1980 the brunt of the adjustment of the monetary and credit targets of 1978 and 1979, when the peseta was revalued.[86] The competitiveness of Spanish exports, however, has recovered lately as a result of a slower rate of increase of domestic costs and prices and the depreciation of the peseta by 14 per cent in the last 19 months to November 1980.[87]

According to official estimates in January 1981 the trade deficit (*f.o.b-f.o.b*) in 1980 was $12.3 billion compared with $5.7 billion in 1979 and $4.0 billion in 1978. The surplus on services is expected to have reached $4.9 billion (5 billion in 1979) and the surplus of transfers a little less than $2.2 billion (1.8 billion in 1979). Thus the current deficit would be about $5.1 billion (or 2.5 per cent of GDP at market prices), compared to a surplus of $1.2 billion in 1979. The deterioration in the service balance is due to an increase in royalty and investment income paid abroad and only a minor increase in net tourist receipts. Net long term capital inflow is expected to have been $4 billion, so for the year as a whole the loss of reserves is put at about $850 million. The doubling in the net long term capital inflow has been partly caused by the borrowing abroad of Spanish enterprises which had difficulties in borrowing in the domestic credit market. Authorized direct foreign investment (i.e. of above 50 per cent participation) remained stagnant in 1980 as compared to 1979, but the figures are greatly influenced by a large investment in 1979 in the motor car industry.

Preliminary official estimates, based on partial payments data, show that the current account deficit of *Turkey* in 1980 almost doubled compared with that in 1979. The increase in the deficit from $1.2 billion in 1979 to $2.1 billion in 1980 is mostly the result of the increase in the (*c.i.f-f.o.b.*) trade deficit from $2.8 billion to $3.7 billion, resulting mostly from an increase of $1.5 billion in the oil import bill (this is estimated at $3.2 billion which is 11 per cent more than total export receipts). Oil imports and foreign debt repayments (interest and principal) absorbed over four-fifths of the foreign exchange resources obtained from total commodity exports and workers' remittances in 1980. According to balance of payments data, the dollar value of exports increased in 1980 by 27 per cent and that of imports by 30 per cent.

Turkey's favourable balance on invisible transactions[88] continued to improve in 1980 but by much less (4 per cent) than in 1979. In 1979, the invisible transactions surplus had increased by 75 per cent reaching an unprecedented $1.6 million due to a significant improvement in remittances (from $1.0 billion in 1978 to $1.7 billion in 1979) following the introduction of a special exchange rate in April. Remittances continued to increase in 1980 to a record level of $2.1 billion (17 per cent higher than the target) due to further incentives in the form of premium interest rates and still more favourable rates of exchange. Net tourism income, on the other hand, stagnated ($180 million) despite official attempts to attract more foreign tourists. As a result of increased borrowing abroad and rising interest rates, interest payments on foreign debt rose significantly In 1980, according to provisional figures, Turkey paid $810 million in interest which was almost 30 per cent higher than in 1979. Interest payments were more than 60 per cent of total payments on foreign debt in 1980 compared with around 50 per cent in 1979 and 1978.

In recent years the annual economic programmes and a number of economic policy packages in Turkey have endeavoured to squeeze domestic demand and boost exports. Among the measures taken to increase exports have been frequent devaluations of the Turkish lira, various incentives to exporters, and special efforts to increase trade with the middle eastern and CMEA countries. The trade links created with these countries have changed to a certain extent the commodity composition of Turkish exports. There have been notable increases in exports of fruit and vegetables, cereals, livestock, processed agricultural products, clothing, footwear, textiles and, to a smaller extent, in building materials supplied to Turkish engineering firms carrying out public works contracts in the Middle East.

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[86] The peseta appreciated, on a trade-weighted basis, between August 1977 and May 1979 by about 20 per cent, but from May 1979 to November 1980 it declined by about 14 per cent. There have been many exchange adjustments during the decade. From May 1970 to the end of 1973, it appreciated by about 14 per cent, but from the end of 1973 to August 1977 it depreciated by over 35 per cent. In November 1980 the peseta was 20 per cent under the May 1970 parity.

[87] The "index of competitiveness", composed of a component of relative prices and an index of export prices in pesetas, shows an increase of nearly 10 points from December 1979 to October 1980; the domestic price increase was somewhat faster than those of competitors, but the depreciation of the peseta was 7.9 per cent. See *Información Comercial Española*, No. 1760, 25 December 1980.

[88] This does not include freight and insurance since the trade data are presented on a *c.i.f-f.o.b.* basis.

In 1979 exports declined slightly due to speculation on the devaluation of the lira, high domestic prices for agricultural exports and low manufacturing production due to oil and raw material shortages. In 1980 exports stagnated during the first eight months and remained below expectations due mainly to low production. However industrial exports rose more than 50 per cent in value in the September-October period compared with the corresponding period in 1979, and were nearly 90 per cent higher in November. In December exports reached an historically high $526 million (equivalent to almost one-fifth of the annual figure). Among industrial exports the sharpest increase was in cotton textiles (40.5 per cent: January-October data). Despite the sharp recovery in the fourth quarter, Turkish exports fell behind the economic programme target of $3.5 billion and the cover ratio fell from 45 per cent in 1979 to 43 per cent in 1980.

According to the figures for January-October,[89] agricultural exports, which account for 57.5 per cent of total exports, increased in value by 8 per cent compared to a 3.5 per cent fall in the corresponding period of 1979. Among the agricultural exports the largest increases were in citrus fruits, cotton and livestock (70 per cent, 21 per cent and 116 per cent respectively). Wheat exports,[90] which declined in 1979 by 59 per cent, increased in 1980 by almost 200 per cent.

The dollar value of imports (*c.i.f.*), which declined by 20 per cent in 1978 (due to foreign exchange bottlenecks), increased by 10 per cent in 1979, mainly due to oil. In 1979 the volume of imports fell by 20 per cent. In 1980 the value of imports increased by 30 per cent without significant change in volume. The share of oil in the total value of imports was 17 per cent in 1975, 30 per cent in 1978, 34 per cent in 1979, and reached more than 50 per cent in 1980. The value of oil imports has almost doubled from $1.7 billion in 1979 to $3.2 billion in 1980.

Imports of investment goods increased in value by 52 per cent during January-September 1980 compared with the corresponding period in 1979. Within the investment goods group the largest increase was in construction materials (618 per cent). In 1980 imports of transport vehicles and chemical fertilizers fell sharply (by 29 per cent and 17 per cent respectively). Imports of consumer goods, which had remained stagnant in the last two years, increased by 27 per cent during the same period.

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[89] January-October figures are taken from Is Bankasi, *Review of Economic Conditions*, September-October, Ankara, 1980.

[90] Ministry of Finance, provisional data for 12 months.

3. PROSPECTS AND POLICIES

The stance of economic policies in *Greece* during 1980 gradually changed towards expansion. The policy targets stated as guidelines in the 1981 Budget document, which was submitted to Parliament at the end of November, include stimulating domestic demand and reducing fiscal "drag". The forecast public sector deficit[91] (central government plus public corporations) for 1981 is larger than for 1980 (10 per cent of GDP compared with 9.3 per cent). Once public debt repayments are subtracted from the public investment budget, the deficit for 1981 is 34 per cent larger than that estimated for 1980.

Incomes policies in Greece consist largely of the control of rises in civil servants' salaries and adjustments of the minimum wage. The index of the real minimum wage has declined from 100 in 1978 (the base year) to 98.8 in 1979 and 92.9 in 1980. For 1981 the average increase in consumer prices is officially estimated at 20 per cent[92] and the increase in the minimum wage at 22.4 per cent. There will be a further increase in the minimum wage in November 1981 if the increase in consumer prices exceeds 20 per cent. Salaries of civil servants will increase in line with the consumer price index.

The target for total credit expansion in 1980 was overshot by 49 per cent; for 1981 the target increase is a restrictive 16 per cent. However, credits to the private sector should increase considerably more rapidly (24.5 per cent) than to the public sector (9.6 per cent). Private housing credits are expected to increase particularly rapidly (by 53 per cent). Government borrowing from the domestic banking system should remain stable due to the fact that greater financing from the EEC regional and agricultural aid funds should be available.

According to official estimates total demand should increase by 2.8 per cent. Private consumption could grow by 2 per cent and public by 5.3 per cent. Private fixed capital investment is expected to increase by 3 per cent, stimulated by recently introduced investment incentives, greater credit to housing and full membership (from January 1981) of the EEC. It is expected, however, that the share of housing in total investment will decline. Public sector investment (which fell by 6.5 per cent in 1980) is expected to increase by 4.5 per cent due to higher investments by public corporations. GDP should increase by 3 per cent, the primary sector expanding by 2 per cent and both industry and services by 3.2 per cent. The implicit GDP deflator is put at 17 per cent.

The still very high level of inflation, the weakness of foreign demand and the large current account deficit are now the main problems of the Greek economy and in 1981 they could jeopardize the attainment of some of the targets given above. An increase in domestic demand could provoke a further increase in the current deficit which might prove difficult to sustain. The recent sluggishness in the growth of exports makes this possibility even more likely.

The implicit price targets in the projections may be difficult to attain, particularly since past experience shows that public sector deficits tend to overshoot the targets. In these circumstances the maintenance of the growth target could imply the acceptance of a considerably higher rate of inflation and a larger current account deficit. A new set of protectionist measures or further currency depreciation might then have to be considered.[93]

In retrospect 1980 was not a bad year for the *Portuguese* economy. The growth of output was maintained, employment increased, and inflation decelerated faster than forecast.[94] The actual growth of exports showed that there was still a good margin of price competitiveness in the export sectors. Although public consumption probably increased faster than expected, the budget deficit is expected to be lower than officially forecast. Finally, the current deficit, even if somewhat larger than forecast, is not a constraint in the short run. As in previous years, the main instrument of monetary policy during 1980 has been the setting of limits to total credit creation, but these limits were exceeded, particularly in the first quarter, due to the fact that the banking system was able to re-discount abundant public debt. Moreover, the supply of foreign credit declined during the first quarter due to the high interest rates prevailing in international credit markets. This situation changed during the second quarter but, even so, the share of external financing in total financing declined from 18.5 per cent in the first half of 1979 to 9 per cent in 1980.

At the onset of 1981 several of the factors which have played an important role in the maintenance of a fairly satisfactory and sustained rate of growth in Portugal seem to be weakening. It seems unlikely that manufacturing output in the first half of 1981 could exceed the rate of growth achieved in 1980 and agricultural prospects for 1981 look bad in view of the extremely unfavourable weather prevailing during the 1980/81 winter. From the demand side the main problem is to reinforce the revival of investment and to avoid a creeping deterioration of competitiveness due to the rate of exchange depreciation falling behind the rate of domestic inflation. Although final budget results for 1980 will not be available for some time, it seems clear that the

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[91] Final results are not yet available. The data presented here derive from estimates given in *Oikonomikos Tachydromos* and *Oikonomiké Poreia.*

[92] The increase in the GDP implicit deflator is forecast at 17 per cent.

[93] The drachma depreciated by 13.1 per cent during 1980 with respect to the dollar and by 13.9 per cent with respect to the Deutschmark.

[94] Continuing price controls and a good agricultural year played a major role in this.

Portuguese authorities are succeeding in restraining the growth of the public sector deficit to a more manageable rate.

As for other economies in an intermediate stage of development, the main difficulty consists of achieving a mixture of policies which, while maintaining external and internal balance, do not hamper long-run structural changes. During 1980 many important measures were taken, aimed at redefining the fields of public and private enterprise, promoting employment, stimulating investment and rationalizing public investment projects. The most outstanding of these measures is the enactment of a "co-ordinated system of fiscal and financial stimuli to investment." This system classifies investment into four categories according to a single formula which combines cost-benefit criteria (which are given a weight of 0.65) with sectoral priority (which is weighted 0.20) and regional location (weighted 0.15). The system also allows the potential investor to know precisely and immediately the incentives available for a project. Its introduction has probably already had a favourable influence on the revival of industrial investment.

The main lines of economic policy for 1981 are not yet officially known as the programme for 1981—to be incorporated in the general strategy of the 1981-1984[95] medium-term plan—has not been officially published and the budget has not yet been presented to Parliament. Preliminary documents foresee a growth of production in 1981 of 5 per cent, an increase in gross fixed capital formation of 10 per cent, a widening of the balance of payments' current deficit to $1.2 billion, a further slowdown in inflation and a containment of the public sector deficit to 10 per cent of GDP at market prices. It is also expected that the rate of depreciation of the escudo against other currencies will slow down, that real wages will increase by 2 per cent and that the savings ratio will increase. Monetary policy should become less restrictive and it is expected that interest rates could decline.

The fulfilment of these targets would imply an extraordinary resilience of the Portuguese economy in the face of an adverse world economic situation. Recent indicators, however, suggest that an economic performance near to that attained in 1980 would, in the present world context, represent a considerable achievement.

In *Spain*, the very low level of economic activity in 1979 and 1980, and the high levels of unemployment (the highest in western Europe), lend particular urgency to the problem of achieving a higher rate of economic growth. Economic policy has moved towards a more stimulative role in which a philosophy of confidence in the efficiency of market mechanisms, and measures to reinforce them, are combined with direct intervention in sectors which are in particular need of adaptation or in which favourable employment or income multiplier effects are expected.

The Government's 1979 economic programme included monetary targets. The target for total liquidity growth was 17.5 per cent plus or minus 2 per cent and for private credit more than 17.4 per cent. Both these targets were more or less met. No monetary or credit targets were set for 1980 but the Ministry of Economy stated that "the fact that the budget deficit shall remain (in real terms) at the same level as 1979 will allow an expansion of credits to the private sector greater than in 1979, while a deceleration in total available liquidity could be achieved".[96] The latest data referring to November 1980 show that the increase in liquidity has expanded at about the same rate as in 1973 (M3 increasing by 17 per cent year-on-year), while total credit to the private sector has increased from October 1979 to October 1980 by 20.6 per cent, which is consistent with the aim of increasing it in real terms. The context of monetary and credit policies has changed considerably from year to year: during the first half of 1979 the current balance of payments' surplus and the huge deficit of the public sector forced an appreciation in the exchange rate and a fall in interest rates, while in 1980 the emergence of a current balance of payments' deficit drained liquidity and, in spite of the persistent growth of the public sector deficit, made monetary management somewhat less problematic.[97] Credit terms, however, continued to be hard as interest rates increased in the second quarter of the year mostly due to external influences.

The main targets of fiscal policy in 1980 were to keep the public sector deficit at the same proportion of GDP as in 1979 and to increase capital more than current expenditure. Neither of these targets were met. According to the most recent information,[98] the consolidated deficit in 1980 was equivalent to 3 per cent of GDP compared with 2.7 per cent in 1979. The central government deficit is put at 2.2 per cent of GDP. Partial data indicate that 76 per cent of the 1980 deficit was financed by Central Bank advances compared with 63 per cent in 1979.

Neither the budget documents nor the new economic programme (published in September 1980) set monetary targets for 1981, but it seems likely that neither the rate of liquidity creation nor the availability of credit to the private sector will be substantially altered. Fiscal policies will continue to be expansionist: the consolidated deficit of the Public Administrations is estimated to reach nearly 640 billion pesetas, an increase of 39 per cent on 1980. In terms of national accounts the deficit should represent 3.5 per cent of GDP and the central government would account for over 68 per cent of this. Indirect taxes should increase—as in 1980—faster than direct ones and there will be a half point increase in fiscal pressure to 13.5 per cent of GDP. The financing of the central government deficit changes substantially as advances from the Bank of Spain decline in importance (covering 56 per cent of the deficit), and public debt issues (27 per cent) and foreign financing (16 per cent) increase.

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[95] The 1981-1984 Plan has not yet been approved, but its main lines are known. Apart from the usual welfare targets such as that of "improving the standard of living of Portuguese families", "reducing economic differences among regions" or "improving income distribution" and "reducing unemployment", the Plan contains a series of quantitative targets. GDP should expand by 4.9 per cent, productivity 3.9 and employment 1.1 per cent. Private consumption should expand by 3.3 per cent and public consumption by 3 per cent. Gross fixed capital formation should expand by 7.6 per cent, private investment growing faster (10 per cent) than public. Exports are expected to expand by 7.9 per cent and imports by 5.2.

[96] Ministerio de Economia, *La Economia Española en 1979 : Los cambios estructurales*, Madrid, July 1980.

[97] The instruments of monetary control by the Central Bank have been refined in recent years by the introduction of open market operations with treasury bonds and certificates of deposit. Nevertheless, there is still excessive instability in monthly and call-money lending rates. A new institution was created in December 1980 called MMD or Mediation Societies in the money markets which will carry out arbitration operations on short-term assets among credit institutions and private savers.

[98] *El Pais*, quoting Ministry of Finance sources, 9 January 1981. Previous official estimates were 510 billion pesetas for the Public Administrations' deficit and 400 for the Central Government's.

The State budget for 1981 foresees, as in previous years, a greater increase in capital than in current expenditure. Current expenditure is expected to increase by 15.4 per cent and capital expenditure by 31.4 per cent (real investments increasing by 26.8 and capital transfers by 34.3 per cent). The increase of investment will be directed to sectors with large employment-multiplier effects or with the capacity to stimulate private investment. The sectors selected are energy,[99] construction,[100] agriculture and transport.[101] The state action will be carried out directly in some cases, through nationalized enterprises in others or by subsidizing private investment (irrigation works, housing). The government has also stated its intention to proceed with fiscal reform (new rules will be introduced for the revaluation of enterprise assets and income tax rates will be periodically adjusted to reduce fiscal drag). The reshaping of the financial and credit system (which has already started) [102] is expected to attract more private saving and to re-direct the credit system towards longer term loans by allowing more freedom to market forces. Measures were also taken [103] to liberalize prices. Together with investment in general, exports receive special treatment in the programme.

According to an official forecast presented with the budget at the end of September 1980, GDP could expand in 1981 by around 2.5 per cent and inflation should not exceed 13.5 per cent. Exports and gross fixed capital formation would be the main source of a faster growth of total demand but the rate of growth of private consumption should also increase. The balance of payments current deficit is forecast at $5 billion, the same as in 1980. Total liquidity (M3) should grow around 17 per cent and credit to the private sector by 18 per cent. The GDP growth target between 1982 and 1984 is 4 to 5 per cent.

Much of the optimism of Spanish experts for 1981 was based on an expected recovery of output in the last quarter of 1980 and on the hope of an autonomous revival of investment. The lastest signs indicate that the output acceleration at the end of the third quarter and beginning of the fourth was not very strong and that investment demand continued to be depressed. The official growth forecast at the onset of 1981 is seen as a maximum and is severely threatened by adverse circumstances. Among these is the poor harvest expected for 1981 which should be well below that of 1980. Unless the revival of late 1980 has been stronger than the indicators suggest, it is unlikely that the industrial sector will respond to the new incentives before the second half of 1981. However, while the targets set for output and demand seem feasible, the price and balance of payments forecasts look more unlikely. The increase in indirect taxation (mostly on refined petroleum products and tobacco) is expected to provoke a 1 per cent increase in the cost of living index, but the recent increase in electricity tariffs by 19 per cent and the effects of a bad harvest would seem to put the price target in jeopardy, even assuming moderation in wage claims. The most optimistic forecast refers, however, to the balance of payments which on the import side implies a sharp reduction in the import elasticity of demand with respect to GDP growth. The Bank of Spain recently estimated [104] that assuming an average price per barrel of 38 dollars and an unchanged quantity of imports (the national energy plan assumes a small decline), the increase in the import bill would be more than $2.6 billion.

Although Spanish exports seem to be recovering part of their competitiveness, impaired in 1980 by currency appreciation, it seems unlikely that the growth of trade will be sufficient to offset the adverse effects of the latest oil price increase. Thus a current deficit of around $7 million seems likely, particularly if the economic revival strengthens and stock-building is renewed in the second half.

Since 1978 the economy of *Turkey* has passed through a very difficult period with high and accelerating inflation, a deteriorating external deficit, low capacity utilization and increasing unemployment. Although oil price increases and world recession have been major influences on this situation, the role of past expansionist domestic policies should not be underestimated. In this respect, 1980 was a crucial year during which new policies were introduced and consistently followed. On 24 January 1980 the Turkish authorities announced the new economic stabilization programme which represented a significant break from previous economic policies. Direct government intervention was reduced and much greater reliance placed on market forces in guiding the economy. Export promotion rather than import substitution was favoured and foreign investment encouraged.[105] This programme, followed by additional measures, some of which required changes in legislation, aimed at restructuring the economy over the medium term and stabilizing the economy in the short term.

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[99] The National Plan for Energy, approved in 1979, aims to reduce the external dependency ratio from 69 per cent in 1979 to 50 per cent at the end of 1985. The 330 billion peseta investment programme for 1980 was fulfilled and investments in 1981 will increase to 430 billion. For 1981 the programme intends to reduce by two per cent the consumption of petrol products.

[100] The housing programme launched in November 1980 plans the construction of 571,000 lodgings in three years (1981-1983). The programme implies an increase of 37 per cent in the number of houses built under direct official support. The credits will increase in inverse proportion to the income of the users. Buyers with 2.5 times the minimum wage will obtain credits at a subsidized interest rate of 11 per cent. It is expected that the programme will create 250,000 new jobs in a sector in which there are at present 300,000 unemployed.

[101] The plans for the re-structuring with public aid of crisis sectors continued in 1980. After the shipyards and steel, the latest, approved in January 1981, is that of certain household consumer durables and home appliances (washing machines, refrigerators, etc.). Other plans for textiles, clothing and footwear are under study.

[102] The main reforms of 19 January were the freeing of interest rates on time deposits of 6 months (for a minimum of one million pesetas) and over.

[103] In October 1980 the number of "sectors" subject to price control was reduced from 73 to 38. The share of controlled goods in the consumers' price index is now only 19.3 per cent.

[104] *Boletin economico*, December 1980. Assuming constant imports of 50 million metric tons, each additional dollar per barrel costs the Spanish economy an extra 367 million dollars.

[105] Exporters can now retain 50 per cent of their foreign exchange earnings for their import needs; an export credit insurance scheme was finalized; transit trade laws have been liberalized to permit larger profits on re-exports; export licensing was liberalized for most industrial items; most of the import taxes and quotas were abolished; all branches were opened up to foreign investors who, in some branches, can now take a majority holding.

In accordance with this liberalization policy interest rates were freed in July 1980: this had positive effects on savings but dampened private sector investments. In December 1980 a tax reform was introduced to reduce fiscal drag and to arrive at a more equitable distribution of the tax burden.[106] A value added tax is being prepared and will be introduced in 1982.

One of the causes of accelerating inflation in recent years has been the chronic deficits of the consolidated budget.[107] These have been largely due to rapidly rising transfer payments, a significant portion of which has been devoted to covering the operating losses of state enterprises. It is now officially estimated that the 1980 budget deficit will be around three times the planned deficit of TL 50 billion and will amount to more than 4 per cent of GNP. In 1981 the consolidated budget is planned at TL 1,581.8 billion which is 35 per cent higher than the actual figure for 1980 but, with an expected 40 per cent inflation rate in 1981, is not larger in real terms. As in previous years public investment is again restricted (public investment decreased in real terms in both 1979 and 1980). The central government budget allocation of TL 323 billion for investments is less than half of total public sector investment (TL 667 billion) planned for 1981; the rest will be carried out by state enterprises and other official organizations. The new budget plans a significant curb on current personnel expenditures: their share in total expenditure falls from 30.6 per cent in the 1980 budget to 25.7 per cent in 1981.

The 1981 programme foresees GNP growth of 3 per cent, while the average inflation for the year is estimated at 40 per cent. While public and private consumption are each expected to increase by 2 per cent, total investment is to grow by 6 per cent in real terms. Out of total investments of TL 1,125 billion, the public sector accounts for TL 667 billion.[108]

The target for exports is $3.5 billion and for imports $9.0 billion. Imports are planned to increase by 35 per cent to avoid production bottlenecks. The expected earnings from invisibles are $2,050 billion, $2.4 billion from remittances and a net income of around $250 million from tourism. In 1981 interest payments on foreign debt are put at $820 million and profit transfers at $60 million. The current account deficit should thus be $3,050 million, 60 per cent more than in 1980. In the capital account, project and programme credits are expected to be $900 million and $2,500 million respectively, while repayments of principal will be $680 million. Foreign direct investments are targeted at $180 million and imports with waivers of $150 million. Hence the capital account balance will be $3,050 million and the over-all deficit $400 million, which is expected to be financed by IMF funds. Thus, in 1981, $2,700 million in external loans will be needed.

According to the 1981 programme state enterprises will invest TL 317 billion, with emphasis on the completion of projects already started, and their operating deficits will not be financed by government transfers as in the past but will be covered by price adjustments.

In 1980 the basic problem was the fall in industrial production due to energy shortages, the credit squeeze and strikes. After September 1980 the energy problem was eased to a great extent and labour relations improved: consequently production started to recover. However, liquidity shortages were not eliminated and the authorities insist that the tight monetary policy will continue in 1981. Hence the main possibility of easing the liquidity shortage is to increase foreign exchange earnings from exports and the inflow of savings of Turkish workers abroad and foreign capital. However, workers' remittances are already very high and to expect much more foreign capital in the short run may not be realistic.[109] Therefore, the only promising domestic source of foreign exchange in the short run is exports. The Turkish economy entered 1981 with $2.2 billion worth of agricultural stocks in excess of domestic requirements which is significantly higher than in recent years. However, past experience indicates that these are not likely to be all exported in one year because of the lack of the necessary infrastructure. In the industrial field, even if the EEC had already given Turkey full tariff exemption for industrial exports, textiles, which together with a few leather goods, are the only important export items to the community, are excluded. However, textiles and clothing exports, together with processed food and livestock, are increasing rapidly to the Middle East and Libya. In this respect the CMEA countries are also becoming important markets for Turkish exports.

The most crucial import is oil. To sustain a 3 per cent growth rate in 1981 Turkey will need around 20 million tons of crude; commitments for 17 million tons of oil have already been made. In addition to imports, domestic production, which has declined more than 20 per cent in the last 10 years, is expected to be not less than last year, that is, around 2.8 million tons.

Another important question for 1981 is the rate of domestic savings, which may increase significantly if inflation can be slowed down and interest rates kept high. Savings may increase even faster with the increase in wages and salaries due to declining tax rates. However, very high interest rates[110] may harm investments, especially investments of small enterprises. In this regard, the Council of Ministers enacted a decree on 4 February 1981 reducing the cost of credit to industry and for exports,[111] as well as directing banks to increase export credits.

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[106] The corporation tax was increased from 25 per cent to 50 per cent. Industrial exporters can deduct from their taxable income $250,000 of their export earnings. To secure fiscal advantages investments have to be in accord with the development plan objectives, that is, they should be oriented towards exports, energy saving and tourism.

[107] Budget of the Central Government (general budget) and related activities such as universities, waterworks, etc.

[108] The 1981 investment programme includes few new projects but mainly focuses on the completion of existing projects, with particular emphasis on those which can go into production quickly. The energy sector will take 22 per cent of public investments. Although the highest share of public investment goes to manufacturing, it will decline by around 6 per cent compared with 1980, since in the new programme for industry the emphasis is on increasing capacity utilization rather than new investments. Special emphasis has been given in the new programme to exploiting the export potential of agriculture. Agriculture will take 13 per cent of public investment, which is more than 50 per cent higher than in 1980. Particular emphasis will be on agricultural infrastructure (such as silos), irrigation and forestry. In manufacturing, 63 per cent of investment will be in intermediate goods industries, 26 per cent in consumption goods industries and the rest in the investment goods industries. Mining is also among the sectors with the largest allocations of public sector investment, others being tourism and transport.

[109] To this end, convertible currency deposits were legalized in December 1980 on which interest rates (competitive with those of foreign banks) will be paid in foreign currency.

There are two crucial external elements in the effort to achieve economic stability in Turkey. The first is oil prices and the second is the volume of foreign aid required to ease the balance of payments constraint. For the next few years Turkey's economic recovery will depend on a regular supply of foreign loans. By the end of 1980, Turkey's total official debt commitments are estimated to have reached about $16 billion, which implies substantial foreign debt servicing which will put a heavy burden on the balance of payments.

Of the $1,161 million committed by the OECD for 1980, only $808 million has been disbursed; the remainder will be received in 1981. Thus the $2,500 million that Turkey needs this year is reduced to $1,647 million. It is hoped that this gap will be closed by $400 million of programme loans from western banks, $200-300 million from the Arab countries and the remaining $1,000 million from the OECD Consortium. A $900 million investments project loan is also needed in 1981. Most of this has been secured from the World Bank and the rest is expected to come from the European Investment Bank and other international bodies.

Note on the island economies of the area

In *Cyprus* the growth rate of GDP decelerated from 7.5 per cent in 1979 to 4.3 per cent in 1980. Inflation increased from 9.5 per cent in 1979 to 13.5 in 1980. Investment decelerated, falling behing the target set in the third emergency plan. The balance of payments current account worsened and unemployment increased, although as a share of the labour force it still remains low (2.1 per cent). The major policy problem at present seems to be the implementation of a widely agreed price and incomes policy which would prevent an acceleration of inflation and avoid the need to implement more stringent fiscal and monetary policies which could lead to a large increase in the level of unemployment.

According to a recent forecast, the increase of GNP in *Malta*, at current prices, during 1980 was 25 per cent compared with 15 per cent in 1979. As the rate of inflation more than doubled (from about 7 to over 16 per cent), the volume growth of GNP in both years is probably close to 7 per cent. Investment probably stagnated in 1980 and exports of goods and services decelerated markedly, so consumption, both public and private, provided the main stimulus to output growth in 1980. Unemployment increased by 7 per cent but remained relatively modest as a share of the labour force (2.8 per cent at the end of September). The current balance of payments continued in surplus (equivalent to 7.5 per cent of GNP) as a result of increased receipts of net investment income.

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[110] On 30 January 1980 interest rates on savings deposits of one year were increased to 50 per cent. The Central Bank warned banks not to exceed this limit; if they do there will be a freeze on interest rates.

[111] At the end of December, the interest rate was 22 per cent on export credit and 62 per cent on normal loans.

4. YUGOSLAVIA

(i) General trends

Economic policies in Yugoslavia were tightened in 1980-1981, whereas during the 1977-1979 period the authorities had aimed at maximizing growth rates of output and employment. The changed policy stance was introduced primarily to counteract adverse trends in the balance of payments and inflation, which were caused largely, though not exclusively, by rises in the price of petroleum and other imported industrial imports. Through their direct effect on the foreign payments balance, these external price movements combined with existing structural rigidities in the domestic economy to restrict short-term growth prospects.

Growth of GNP in the 1977-1979 period lay within the 7-8 per cent range in each year. Final domestic demand tended to rise at a somewhat faster rate, and non-agricultural employment expanded rapidly. These high growth rates were needed, *inter alia*, to ease labour market pressures which had been accentuated by the return of Yugoslav labour employed abroad, as well as to raise productivity in order to sustain the expansion in the standard-of-living of workers in the agricultural and service sectors. Growth potential was good, despite certain strains in the domestic economy and adverse conditions in world markets: domestic savings were running at high levels and the labour supply was abundant. Domestic resources were augmented by borrowing abroad, which neutralized difficulties in mobilizing domestic resources and adverse movements in international markets. Borrowing was able to proceed on a relatively large scale: the net convertible currency debt service ratio (interest plus credit repayments related to receipts in convertible currency) amounted to no more than 14 per cent in 1976, though it rose gradually to 20 per cent by 1979. This was accompanied by a progressive rise in the Yugoslav current account deficit from an equilibrium position in 1976 to a deficit of $3.7 billion in 1979. A considerable proportion of this increase was due to rises in the price paid for imported petroleum and other industrial inputs, suggesting that these price increases were financed predominantly by borrowing from abroad.

The increase in the debt service ratio reduced the Yugoslav capacity to borrow abroad. Reduction of the current account deficit thus became an urgent directive, and was to be brought about first by a substantial drop in 1980, and by successive though smaller declines in subsequent years. Given the persistence of structural rigidities in the domestic economy, growth capacity has inevitably fallen. Also inflation (as represented by the GNP deflator) increased to more than 20 per cent in 1979, and the need to slow down price rises has also limited growth prospects.

Economic policies in 1980 were hence designed to meet a new and less favourable economic conjuncture. In addition to the more restrictive supply and demand policies, other measures have been applied to restrict imports and stimulate exports, including a 30 per cent devaluation of the domestic currency announced in June 1980. Export promotion has, indeed, become the top priority—though the strongest impact on the current balance in 1980 resulted from the limitation of imports, the volume of which was reduced by 11 per cent compared with a 7 per cent annual average rise during 1977-1979. The import slowdown affected the growth rates of output and investments, and in turn the expansion of income and demand. Direct import control is at present an important instrument for redressing both domestic and international imbalances. Growth pressures generated by the economic system are strong, and investment activity and the industrial output sector are highly import dependent, while demand management techniques are not as yet fully effective. Nevertheless, and despite some leakages, demand management policies did help to redress disequilibrium in 1980. Policy dispositions are now legally binding, whereas in preceding years they were applied more loosely and formulated as recommendations. Similar policies to those described will be pursued into 1981.

Final domestic demand in 1980 grew by only 0.8 per cent, compared with 7.5 per cent per year during 1977-1979. This reduced the pressure to import. The volume of imports in fact declined by 11 per cent, exports expanding rapidly (by 9.1 per cent in volume terms). The deficit on current account fell to some $2 billion. Some acceleration in the growth of final domestic demand is planned for 1981, but the deficit on the current account is expected to be reduced further (to $1.8 billion). As a consequence, the GNP growth rate, which slackened to 2.5 per cent in 1980, may speed up to 3.5 per cent in 1981.

The lag of final domestic demand behind GNP growth in 1980, and the likelihood that this will continue in 1981, means that the financing of increased expenditures due to rises in the price of imported petroleum and other industrial inputs was shifted from foreign borrowing to domestic sources. The bulk of this switch was borne by real wages, which declined, and by investments in fixed assets, which stagnated.

The target for inflation was not met in 1980. In fact, price rises accelerated over the year, mostly on account of rising costs both at home and abroad. On the whole, it was again underlined that the rate of inflation in Yugoslavia is a function less of output and demand growth rates than of certain deficiencies in institutional arrangements and of import cost increases.

The growth output in 1980 was still relatively high by international standards, but it was too low to prevent a further rise in unemployment. Agricultural labour redundancies, and a strong tendency for the affected workers to migrate to cities, was the major element in the deterioration in the labour market during the year.

The high current import dependence of output (some 15 per cent in terms of gross output net of inter-branch supplies but some 27 per cent in terms of GNP), and the high current account deficit in 1979 might suggest that a considerable decline in the rate of growth of output was needed in 1980 if a prompt and substantial reduction in the foreign deficit were to be achieved. However, had restrictive policies been applied in a more selective way, a similar result may have been obtained with somewhat higher growth rates of output and employment than actually reported for the year. Certain sectors (accounting for some 54 per cent of total output) have a low dependence on imports. A number of these reported substantial slack capacity at the beginning of 1980, and domestic demand for their products and services—notably construction, agriculture and the food processing industries—remained unsatisfied to a considerable degree. These sectors could therefore have expanded at higher rates without upsetting major economic policy goals.

Growth prospects may improve in the next few years. The draft plan for 1981-1985 stipulates an average annual GNP growth rate of 4.5 per cent. Since growth is unlikely to exceed 3.5 per cent in either 1981 or 1982, it could, by implication, exceed 5 per cent thereafter. This expectation rests mainly on the assumption that savings and labour will continue to be plentiful while growth capacity will be raised through import substitution and export promotion. Hence, the foreign deficit should remain within manageable limits. In fact, export and import volumes are planned to increase by average annual rates of 8 and 1.1 per cent respectively, the volume of imported industrial inputs increasing by more than 4 per cent. On these assumptions, the current account deficit should eventually decline to $1 billion. The rise in domestic demand is limited to an average of only 2.8 per cent annually. Obviously these targets are very optimistic. However, import substitution is expected to be greatly helped by improvements in the structure of domestic output, where priority is to be given to industrial inputs, energy materials, agriculture and machinery. The development of domestic resources will be upgraded; in the past their competitiveness has suffered from over-valuation of the domestic currency and discriminatory credit policies. In the field of energy, the expansion of both hydro and thermal power (based on lignite) will be stepped up. Some 50 per cent of existing water power resources are not yet utilized and deposits of lignite coal, cheap and easy to extract, are estimated at more than 25 billion tons. At present, the share of imported energy in total energy consumption is small and may decline further.

(ii) The growth of output and demand

Shifts in the pattern of demand growth between the 1977-1979 and 1980-1981 periods have been considerable and already reflected changes in priority from domestic growth to the improvement of the foreign balance. Thus, the major expansionary force shifted from domestic demand to the foreign sector. Final domestic demand, which expanded fast during 1977-1979 (by 7.5 per cent per year), hardly rose in 1980 (0.8 per cent), though a somewhat higher rate is envisaged for 1981 (table 2.4.1). In contrast, the foreign sector, which tended largely to offset the rise in domestic demand in the earlier period, acted as an amplifier in 1980. During 1977-1979 the volume of imports increased fast (7 per cent per year) while the volume of exports declined in each year of the period. In contrast, the volume of exports expanded by 9 per cent in 1980 while that of imports declined by 11 per cent (table 2.4.2). The plan for 1981 expects exports to rise by 7 per cent and imports to decline by 3 per cent.

This change in demand patterns and alterations in foreign balances inevitably caused a slackening in current growth rates, affecting not only total output but all sectors of the economy in 1980. Industry and construction were most strongly affected. Industrial growth slackened from the fast rates reported during 1977-1979 (8.6 per cent on average per year) to a relatively slow rate in

TABLE 2.4.1

Yugoslavia: Volume growth of demand and output

	1977 billion current dinars	*Percentage share*	*Annual percentage change at constant 1972 prices*			
			1977	*1978*	*1979*	*1980*
Final domestic demand	738	93.9	8.4	8.2	6.0	0.8
Private consumption	398	50.2	7.0	7.0	5.6	1.3
Collective consumption	73	10.0	7.4	6.5	4.5	1.0
Gross fixed investment	267	33.7	9.5	10.5	7.0	—
Total domestic demand	793	100.0	12.8	5.9	8.1	0.6
Addition to stocks and errors	55	6.1	3.6	−1.5	0.6	−4.0
Foreign balance (goods and services)	−60	—	−4.8	0.2	−1.4	..
Social product	733	—	7.9	6.9	7.1	2.5
Agriculture [a]	114	—	4.8	−6.4	5.7	−2.0
Industry [a]	283	—	9.4	8.7	7.9	4.5
Construction [a]	79	—	9.5	12.8	9.8	2.0
Industrial output per worker	—	—	5.7	5.3	4.0	2.0

Source: National statistics.

[a] Index of physical volume of output.

TABLE 2.4.2

Yugoslavia: Balance of payments and foreign debt

	1977	*1978*	*1979*	*1980*
		Annual percentage change		
Volume growth				
Exports	−5.3	−0.8	−0.4	9.1
Imports	13.1	−1.0	10.0	−10.9
Terms of trade	−0.9	3.9	−3.7	0.8
		Million current US dollars		
Trade balance	−4 380	−4 317	−7 225	−5 983
Exports c.i.f.	5 254	5 671	6 794	8 961
Imports f.o.b.	9 634	9 988	14 019	14 944
Balance on services and transfers	2 798	3 061	3 564	3 783
Remittances	1 427	1 714	1 710	..
Tourism	751	930	1 028	..
Transportation	563	585	731	..
Interest	−258	−300	−1 035	..
Other	315	132	1 130	..
Balance on current account	−1 582	−1 256	−3 661	−2 200
Capital account	1 544	1 592	1 809	3 200
Net reserve movements	−38	336	−1 852	—
Total reserves	3 309	3 645	1 793	2 793
Gross foreign debt	9 540	11 833	13 920	16 500
Net foreign debt	8 424	10 726	12 500	15 000
Net foreign debt minus reserves	5 115	7 072	10 307	12 207
		Percentage		
Ratio of total debt service to all exports				
Net	14	14	17	..
Gross	17	18	21	..
Ratio of total convertible debt service to all convertible currency receipts				
Net	17	17	20	19
Gross	20	21	24	21

Source: National statistics.

1980 (4.5 per cent) with the prospect of declining further in 1981 (4 per cent). This was accompanied, and was partly caused, by a substantial reduction in the supply of inputs: in 1980 their import volume fell by 7 per cent (against a 12 per cent average annual rise during 1977-1979), while domestic output of these commodities increased by 5 per cent (compared with an 8.3 per cent annual average during 1977-1979). Their export volume remained unchanged between the two periods.

There are several reasons for reducing industrial expansion whenever problems of foreign balances arise. First, its direct dependence on imports exceeds 24 per cent (in terms of gross output net of intra-industry supplies). Two-thirds of total imports consist of goods for further processing, the bulk of which are used for industrial output. Second, import substitution policies pursued over the last five years with the purpose of removing balance of payments constraints have not been very successful. True, during 1975-1979 industrial output increased by an average 7.7 per cent a year, whereas its consumption of inputs by only 6.3 per cent, within which inputs originating from imports grew by no more than 4.5 per cent (all in volume terms). However, the positive effects resulting from these relative trends were more than neutralized by fast rises in the prices of imported industrial inputs. Somewhat better results were obtained in 1980, when the output of goods for further processing became the most dynamic industrial sector. Industrial growth has however clearly remained sensitive to variations in imported supplies and in fact it was the industrial sector where the impact of policies to restrain import growth rates was felt most strongly in 1980.

Industrial growth prospects should improve in a few years if current import policies are successfully implemented. The draft plan for 1981-1985 expects industrial growth to proceed at an average annual rate of 5 per cent, which implies higher rates in the closing years of the period. Critics in the country argue that this rate is too low in relation to existing potential.[112] Domestic output of inputs is expected to expand at similar rates, and though total imports are planned to increase by only 1.1 per cent per year, growth in imports of inputs should increase at rates several percentage points higher.

The expansion of construction activities also slackened sharply in 1980: falling from high average annual rates of 11 per cent during 1977-1979 to a moderate 2 per cent in 1980. Some recovery may take place in 1981. Construction is one sector where the decrease in growth of the order reported for 1980 could have been avoided had growth policies been more selective. The total dependence of construction on imports is moderate (perhaps 10 per cent) and its unutilized capacity amounted to some 35 per cent. There is, moreover, a considerable shortage of housing in the country; hotel space has become the major limiting factor to the expansion of tourism and the existing inadequate network of roads threatens to become a severe bottleneck in transport. Greater efforts to satisfy the demand of housing and hotel construction would have further reduced pressures on domestic markets and on foreign payments. However, the five-year draft plan for 1981-1985 envisages an acceleration in construction output to over 5 per cent annually. The plan stresses the need to satisfy housing demand and to expand construction activities abroad (at present they amount to nearly $1.5 billion of which more than one-third accrues to the balance of payments).

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[112] *Borba*, 11 January, 1981.

Year to year changes in the output of agriculture and the food processing industries are strongly affected by weather, but government policies, which are not always consistent, have on occasion hindered growth in these sectors. More selective growth policies could have benefited them also. Their total dependence on imports is less than 10 per cent in terms of gross output net of intra-sector supplies. Their existing technical capacity is not fully utilized. Nevertheless the country imports a considerable amount of foodstuffs in the production of which Yugoslavia enjoys a comparative advantage (cereals, meat, edible oil for instance). The draft plan for 1981-1985 stipulates a 4.5 per cent annual average growth rate for agriculture. The plan implies primarily the elimination of the Yugoslav trade deficit in foodstuffs, and also aims to raise food exports, particularly to the oil exporting countries. The natural and technical conditions in the country would support such growth rates, though unknowns such as export prospects and the effects of government policies involve considerable elements of uncertainty.

Changes in the patterns of demand and output were closely associated. The most marked slowdown affected the volume of private consumption, which registered a decline from a 7 per cent average growth rate during 1977-1979 to 1.3 per cent in 1980. A somewhat higher rate is expected for 1981. Real wages were affected strongly (table 2.4.3): after rising by 3.3 and 5.8 per cent in 1977 and 1978 respectively, they stagnated in 1979. They declined by 8 per cent in 1980, and are planned to increase by 1 per cent only in 1981. The growth of other real income was fast throughout 1977-1979 but slackened to very moderate rates in 1980. Real income developments in 1979 were affected by a shift in the terms of trade in favour of agricultural producers, but slow rates of growth or even some actual declines took place in 1980 and 1981, reflecting a deliberate policy to finance the rise in petrol prices. Since it was difficult to mobilize voluntary savings for the latter purpose, the government applied incomes policies which kept the rise in nominal wages below the increase in the cost-of-living. The rise in private savings decelerated considerably but did not fully cover the resulting gap in disposable incomes. Real wages and private consumption are planned to pick up during 1981-1985 to an annual average of 2 and 3 per cent respectively, indicating somewhat higher growth towards the closing part of the period.

Consumer goods' supplies also underwent considerable changes. Output growth fell back sharply from 9 per cent per year during 1977-1979 to only 4 per cent in 1980. A rate similar to that recorded in 1980 is expected for 1981. Consumer goods' export volumes grew only marginally in 1977-1979 (2.4 per cent), but soared by 30 per cent in 1980; fast rises in import volume (11 per cent) in the first period were transformed into a considerable decline (12 per cent) in 1980. Some disruptions in consumer goods' sales were apparent in 1980; the variations in availability from output and trade were not always complementary, giving rise to shortages, expectations of price increases, and consequent stockpiling by consumers. Thus, although sales of detergents, edible oil, sugar and coffee increased in real terms by 8 to 17 per cent, they were not always available in shops, though the situation tended to normalize towards the end of the year.

TABLE 2.4.3

Yugoslavia: Income, wages, costs and prices

	Annual percentage change			
	1977	*1978*	*1979*	*1980*
Incomes				
Total income	23.6	24.1	25.2	. .
Disposable income . .	23.7	26.1	25.2	. .
of which:				
Savings	27.4	39.1	21.6	8.7
Saving ratio (per cent)	15.6	18.5	17.3	16.0
Wages, costs and prices				
Real wages	3.3	5.8	0.1	−7.7
Nominal wages . . .	18.8	20.9	20.5	20.0
GNP price deflator .	15.1	14.9	20.7	29.8
Wage costs per unit of output	12.4	14.8	15.6	17.6
Industrial producer prices	9.5	8.4	13.2	27.0
Agricultural producer prices	12.1	11.4	25.6	35.0
Export prices	14.0	8.7	14.9	21.0
Import prices	15.0	4.6	19.3	20.0
Retail prices	13.3	13.4	21.9	30.0

Source: National statistics.

Note: In 1979 total income was 827 billion dinars, disposable income 806 billion, and savings 140 billion dinars.

The expansion in the volume of investment in fixed assets, which had progressed at an average rate of 9 per cent annually during 1977-1979 was completely halted in 1980, and some decline is anticipated for 1981. The increase in profits was heavily reduced by the slow growth of output. Credits to enterprises increased very little in real terms, borrowing abroad by enterprises was heavily restricted, and a part of their current savings was immobilized by the rise in the down-payments legally required to be deposited with banks before a project is started. The growth of investments in service was blocked by administrative intervention. On the other hand, a sharp slackening in domestic supplies, and especially the decline in imports, reduced the capacity of the economy to invest. Output of capital goods increased by 11 per cent on average per year during 1977-1979 but by only 4 per cent in 1980—a rate which is expected to be maintained in 1981. The volume of exports, which declined in previous years, rose by nearly 3 per cent in 1980. The sharpest break with the trend took place in the growth of import volumes: an annual average rise of nearly 6 per cent in the three previous years having been transformed into a decline of almost 21 per cent in 1980.

Prospects for investment expansion are not bright. The official position at present is that the existing ratio of domestic investment to output is excessive and should be reduced. Thus, investments in fixed assets financed from domestic savings alone, account at present for some 30 per cent of GNP (at 1972 prices), and investments as a whole for nearly 35 per cent of total resources (in western prices these ratios would be several percentage points lower). The plan for 1981-1985 foresees substantial cuts in these ratios: total investment in fixed assets is expected to increase by 1.5 per cent per year compared with the 4.5 per cent annual rate stipulated for the growth of GNP. However, the above rate for expansion of investments does not appear fully consistent with the growth targets for output and exports, but planners hope to derive substantial advantages from existing spare capacities and from rises in efficiency.

For balance of payments reasons the role of imported investment goods is to be reduced. Clearly the high share of imports in total investment in fixed assets up to now, particularly in investment in machinery and equipment (where the import content is about one-third of the total), exposes the sector as a whole to the risk of restrictive action whenever foreign payments problems arise.

The volume of collective consumption in 1980 expanded at a slow rate (1 per cent) while in the preceding three years it progressed at an average rate of 6.2 per cent. Restrictions on public spending were accentuated and the financing of budget deficits by borrowing from the National Bank fell in relation to total expenditures (from 9-11 per cent in preceding years to 7.2 per cent in 1980) (table 2.4.4). Restrictions were also imposed on enterprises' expenditure on social and welfare projects.

Despite the above squeeze on the growth of domestic demand, prices in 1980 not only rose fast but at accelerated rates. The GNP price deflator, which rose from 15 to 21 per cent annually over the 1977-1979 period, accelerated to nearly 30 per cent in 1980. Retail prices expanded at similar rates. Cost pressures and deliberate price adjustments accounted for the bulk of these movements, but demand/supply imbalances of the kind referred to earlier, and the abandonment of administrative price controls for most commodities during the course of 1980 also contributed. Wage costs increased by nearly 18 per cent, as compared with 16 per cent in 1979. Certain tax rates were adjusted upwards. Import prices rose in part because of generalized inflation in world markets (about 20 per cent, as in 1979) and contributed 5 percentage points to inflation. However a second element in the Yugoslav case was the 30 per cent devaluation of the dinar in June 1980 which may have contributed a further 9 percentage points to the over-all price rise. The latter thus explains the bulk of the acceleration that took place in inflation in 1980, domestic causes accounting for 15.5 percentage points of inflation in 1980. The 1981 plan envisages that inflation will revert to a rate below 20 per cent.

Increased costs were passed on to consumers, despite the fact that the money supply expanded less rapidly (at 26 per cent) than GNP in current prices (33 per cent). However, the velocity of circulation of money increased a great deal. The major factor was credit extended by the National Bank to Commercial banks.

(iii) Employment

It has been estimated that under existing conditions 5 per cent more jobs per year need to be created outside agriculture for the net increase in the labour supply (natural increase in labour force plus the outflow from agriculture and emigrants returning from abroad) to be completely absorbed. This rate has not been achieved in past years and as a result unemployment has increased. However, enough new jobs were created to secure a substantial deceleration in the rise of unemployment.

Moreover, change in the trend of output growth between 1977-1979 and 1980-1981 has adversely affected the capacity of the Yugoslav economy to create new jobs. During 1977-1979 employment rose fast (4 to 4.5 per cent); some 680,000 new jobs were created which was sufficient to accommodate the natural increase in labour force (430,000), all returnees from abroad (70,000) and a substantial part of potential migrants from agriculture (180,000). Unemployment continued to rise but at sharply

TABLE 2.4.4

Yugoslavia: Money supply and consolidated budgets

	Billion dinars				
		Changes during period			
	Amount end-1979	*1977*	*1978*	*1979*	*1980*
Money supply (M1)	395.4	42.9	72.2	57.0	98.9
Bank credits	1 210.3	146.2	216.9	253.2	302.6
Foreign exchange transactions	−112.0	−15.2	−18.8	−78.6	−112.4
Non-monetary deposits [a]	−702.9	−86.1	−125.9	−117.6	−91.3
Budget expenditures	507.5	61.4	82.4	100.1	93.3
		Percentage share of total expenditures			
Budget deficit	43.1	14.5	11.6	8.5	7.2

Source: National statistics. [a] Increase.

TABLE 2.4.5

Yugoslavia: Employment

	End-1979 (thousands)	Percentage	Annual percentage change 1977	1978	1979	1980
Total labour force	10 855	100.0	1.4	1.4	1.3	1.3
Employment outside agriculture	5 878	54.2	4.4	4.4	3.9	3.0
Employment in agriculture	3 705	34.2	−1.8	−2.2	−2.1	−1.3
Employment abroad	800	7.4	−5.2	−3.0	–	–
Job seekers	787	7.0	10.3	5.0	3.7	3.2
Vacancies	80	0.7	20.8	9.4	11.1	−2.5
Effectively unemployed	472	4.2	10.2	5.0	3.6	3.2

Source: National statistics.

reduced rates of increase, falling from 17.6 per cent in 1976 (when it reached its peak, principally due to migrants returning from abroad) to 3.6 per cent in 1979 (table 2.4.5).

However, in 1980 employment outside agriculture increased by only 3 per cent and is expected to increase by only 2 per cent in 1981. Employment in the socialist sector (94 per cent of total employment outside agriculture) rose by 2 per cent in 1980. The growth rate in the number of unemployed nevertheless continued to decline in 1980, to a rate of 3.2 per cent. This was due to three factors: employment in the private sector expanded by 6 per cent (compared with 2 to 2.5 per cent in preceding years); a slowdown in the rate of migration from agriculture (employment in agriculture declined by 1.3 per cent in 1980 compared with 1.8 to 2.2 per cent in preceding years); and the virtual cessation of the return of migrants from abroad. Adverse prospects, it seems, discouraged some farmers from registering for jobs elsewhere. The private sector has been strongly stimulated in recent years in order to ease unemployment as well as to improve supplies of certain services which were highly deficient.

The existing level of unemployment is nonetheless clearly too high: job seekers and those effectively unemployed account now for 13 and 8 per cent respectively of the labour force employed outside agriculture—equal to 7 and 4 per cent of the total labour force. However, a high rate is unavoidable in a country where the agricultural labour force still accounts for 33 per cent of the total. In fact, full employment is closely linked to the over-all level of a country's economic development. In Yugoslavia however, even under existing circumstances, unemployment could have been lower than it is, had policies to stimulate self-employment been more regular, more consistent and more widespread, and had migration on Yugoslav territory been properly organized.

Progress in solving this problem will be heavily dependent on the fact that a relatively suppressed growth rate of output is expected in the years to come. Employment outside agriculture is planned to increase by 2.5 per cent annually during 1981-1985: this means the creation of about 750,000 new jobs, roughly equivalent to the natural increase in the labour force. However, employment opportunities will be further expanded by vacancies due to the retirement of 750,000 existing workers, which for demographic reasons will be concentrated towards the end of the 1981-1985 period. Migration from agriculture may therefore be expected to continue on a relatively large scale, which would substantially reduce the excess work force in this sector (at present estimated at 1 million or some 26 per cent of employment in agriculture). Hence, unemployment should virtually stabilize towards the end of the 1981-1985 period, and would moreover decline substantially in relation to the total labour force.

(iv) The balance of payments

Shifts in economic policies and patterns of growth, as well as the devaluation of Yugoslav currency, favoured exports and discouraged imports in 1980, which rose in value terms by 32 and 7 per cent respectively (compared with 15 and 29 per cent respectively in 1979). In dollar terms, the terms of trade were almost unchanged in 1980, compared with a 4 per cent decline in 1979. As a result, the trade deficit diminished by some $1.2 billion to a level of $6 billion, the coverage of imports by exports rising from 49 per cent in 1979 to 60 per cent in 1980. The impact of economic policies on the foreign balance in 1980 was, moreover, stronger still: had prices remained unchanged the Yugoslav trade deficit would have fallen by $2.2 billion, i.e. to a level of $5 billion. It should be mentioned in this respect that the volume of oil imports declined by 5 per cent in 1980, but on account of rising prices, the oil bill rose by $1.1 billion. Trade balances improved with all major trading areas.

Trade in services also progressed in 1980 and again Yugoslav exports were much more dynamic that imports. The Yugoslav surplus on this account increased by more than $200 million—to a level of nearly $4 billion. The principal contributor was tourism which was strongly stimulated in 1980 by a devaluation of Yugoslav currency.

The Yugoslav current account deficit was thus reduced by nearly $1.5 billion to the level of $2.2 billion in 1980. As noted earlier, this was in line with economic policy objectives set at the beginning of the year. Taking merchandise trade and services together, the coverage of imports by exports rose from 80 per cent in 1979 to 90 per cent in 1980. The policy for the future is to continue reducing the current account deficit until it eventually declines to a level of $1 billion.

It was reported that by the end of 1980 Yugoslav foreign debt increased by nearly $2.5 billion, i.e. to a level of some $16.5 billion gross (about $15 billion net of Yugoslav credits to foreign countries) of which $15 billion may have been in convertible currency. This would imply that the current account deficit for the year was financed mostly by borrowing abroad. It seems also that the Yugoslav gross debt service ratio (based on payments of $3.2 billion in 1980, in convertible currency) declined from 24 per cent in 1979 to some 21 per cent in 1980. On a net basis, the ratio fell below 20 per cent. The debt service burden was lightened by the consolidation of Yugoslav indebtedness which extended repayment periods. The draft plan envisages a decline of 1 percentage point annually in the debt service ratio during the course of the current five-year period.

CHAPTER 3

RECENT ECONOMIC DEVELOPMENTS IN EASTERN EUROPE AND THE SOVIET UNION

1. GENERAL DEVELOPMENTS

(i) Growth of national output

For 1980 a marked upturn in economic development was planned in eastern Europe and the Soviet Union. An implied target rate of slightly over 4 per cent growth for net material product (NMP) in the region as a whole was more than 1.5 percentage points higher than the rate achieved in the previous year. It was assumed that the exceptionally adverse conditions which occurred in 1979 would not be repeated for a second consecutive year, and that policy aiming at stable and balanced growth in the long run could be implemented at a pace close to the 1979 targets. Actual trends in the year under review were largely in line with policy orientations in the Soviet Union, Bulgaria and the German Democratic Republic but a number of factors held back performance in the other countries of the region. Thus, over-all expansion in the region as a whole accelerated more modestly than envisaged by the national plans for 1980. In terms of NMP, an aggregate 3 per cent rate of growth was achieved, some 0.6 percentage points up on the 1979 rate (table 3.1.1).

In the *east European countries* taken together the recovery in rates of growth for 1980 did not materialize. Global economic activity rose by an aggregate 1.1 per cent rate in terms of NMP, which was more than 1 percentage point lower than in the previous year and about 3 per-

TABLE 3.1.1

Changes in growth of the net material product

(*Annual percentage change*)

Country and period	*Net material product (billions of national currency units) at current prices*	*Net material product*		*Gross output*				*Construction*[a]	
				Agriculture		*Industry*			
		Plan	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*
Bulgaria									
1976	15.1	9.0	6.5	5.0	4.1	9.2	6.8	8.0	3.3
1977	15.5	8.2	6.3	4.0	−4.6	9.2	6.8	..	15.7
1978	16.3	6.8	5.6	5.0	4.3	7.7	6.9	6.6	−2.2
1979	17.6	7.0	6.6	7.0	6.0	7.8	5.4	..	1.8
1980	18.7	5.7	5.7	3.7	−4.9	6.3	4.0	..	1.3
1981	..	5.1	..	4.7	..	5.6	..	4.4*	..
Czechoslovakia									
1976	418.2	5.0	4.1	5.3	−2.4	5.4	5.5	6.7	3.4
1977	415.0	5.2	4.2	8.2	9.1	5.3	5.7	6.2	3.5
1978	437.1	4.9	4.1	3.4	1.5	5.0	4.8	6.1	3.7
1979	458.6	4.3	3.1	3.8	−4.2	4.5	3.7	5.8	2.5
1980	475.6	3.7	3.0	7.2	6.0	4.0	3.2	3.8	1.3
1981	..	2.8	..	2.6	..	2.9	..	2.8	..
German Democratic Republic	[b]								
1976	147.7	5.3	3.6	1.4	−4.9	6.0	5.9	6.3	6.4
1977	155.3	5.5	5.2	2.8	6.8	5.1	5.4	6.2	5.3
1978	160.8	5.2	3.6	3.5	1.4	5.7	3.7	5.7	2.6
1979	166.9	4.3	3.8	1.3	2.0	5.5	4.8	4.2	—
1980	173.9	4.8	4.2	0.5[c]	0.2*	4.7	4.7	5.3	5.7
1981	..	5.0	..	0.8[c]	..	5.0	..	2.8	..

TABLE 3.1.1 (*continued*)

Country and period	*Net material product (billions of national currency units) at current prices*	*Net material product*		*Gross output*				*Construction*[a]	
				Agriculture		*Industry*			
		Plan	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*
Hungary									
1976	432.4	5.0-5.5	3.0	4.0	−2.7	6.0	4.6	5.0-5.5	4.6
1977	476.0	6.0-6.5	8.0	7.0-8.0	10.3	6.0	6.6	5.0-5.5	6.4
1978	513.1	5.0	4.2	2.0-3.0	2.0	5.5-6.0	4.9	4.0-5.0	3.7
1979	556.0	3.0-4.0	1.8	3.0-3.5	−1.1	4.0	3.0	1.0	0.8
1980	605.0	3.0-3.5	−0.8	5.0-5.5	2.6	3.5-4.0	−1.7	(3.0-2.5)	−5.4
1981	..	2.0-2.5	..	3.0	..	3.0-3.5	..	−1.0	..
Poland									
1976	1 593.3	8.3	6.8	5.9	−1.1	8.8	9.3	4.2	5.3
1977	1 736.1	5.7	5.0	5.3	1.4	6.3-7.3	6.9	6.6	3.6
1978	1 902.6	5.4	3.0	4.5	4.1	6.8	4.9	..	4.5
1979	1 935.4	2.8	−2.3	3.9-4.8	−1.5	4.9	2.7	..	−4.6
1980	..	1.4-1.8	−4.0	5.8	−9.6	3.0-4.2	−1.3	..	−9.4
1981[d]	..	1.5	..	5.0	..	1.0	..	..	..
Romania									
1976	400.0	10.5	10.5	15.0-26.6	17.3	10.2	11.4	..	5.7
1977	431.7	11.3	9.0	1.9-13.6	−0.9	10.5	12.5	20.4	10.3
1978	464.3	11.0-11.5	7.4	6.9-16.1	3.4	10.6	9.6	8.3	10.7
1979	499.3	8.8	6.2	5.1-5.6	5.5	11.3	8.0	8.3	3.0
1980	516.4	8.8	2.5	4.7-6.0	−5.0	11.4	6.5	..	..
1981	..	7.0	..	9.0[c]	..	8.1	..	..	..
Soviet Union		[e]							
1976	385.7	5.4	5.9	7.3	6.5	4.3	4.8	5.1	2.6
1977	405.6	4.1	4.5	5.3	4.0	5.6	5.7	6.5	3.3
1978	426.3	4.0	5.1	6.8	2.7	4.5	4.8	4.1	3.0
1979	438.3	4.3	2.5	5.8	−3.8	5.7	3.4	..	0.6
1980	455.0*	4.0	3.8[e]	8.8	−2.0[f]	4.5	3.6	..	1.0
1981	..	3.4	..	11.9[f]	..	4.1	..	..	..
Byelorussian SSR									
1976	..	5.5	6.0	2.2	6.2	6.1	7.0	3.6	2.6
1977	..	5.8	5.0	2.9	−1.6	6.3	8.3	4.4	4.0
1978	..	6.0	7.5	4.8	6.8	6.1	7.8	6.2	3.0
1979	..	6.0	3.0	3.6	−5.8	6.2	6.9	5.0	−3.2
1980	..	7.0	3.6	3.8	−10.0	5.9	6.0	4.0	..
1981	..	3.9	..	19.1[f]	..	4.1	..	..	..
Ukrainian SSR									
1976	69.8	4.5	6.0	7.9	10.8	4.1	4.1	6.9	4.8
1977	72.9	4.8	4.7	4.3	5.2	5.3	5.7	4.1	2.1
1978	75.7	4.3	4.5	4.0	0.7	4.7	4.5	3.2	−0.4
1979	76.4	4.2	1.0	4.5	−6.8	5.2	3.0	4.2	−2.0
1980	..	3.5	1.0	10.1	−5.0	4.0	2.2	3.0	..
1981	..	4.6	..	16.5[f]	..	3.5	..	..	..
Eastern Europe									
1976	..	7.0	5.7	..	..	7.4	7.4	..	..
1977	..	6.6	5.8	..	..	6.7	7.0	..	..
1978	..	6.1	4.3	..	..	6.7	5.7	..	..
1979	..	4.6	2.3	..	..	6.0	4.4	..	..
1980	..	4.2	1.1	..	..	5.2	2.5	..	..
1981	..	3.6				3.9		..	..
Soviet Union and Eastern Europe									
1976	..	5.9	5.9	..	..	5.2	5.5	..	..
1977	..	4.8	4.8	..	..	5.9	6.0	..	..
1978	..	4.6	4.8	..	..	5.1	5.1	..	..
1979	..	4.4	2.4	..	..	5.7	3.7	..	..
1980	..	4.1	3.0	..	..	4.7	3.3	..	..
1981	..	3.5	..	..	..	4.0	..	..	..

Sources: National statistics, plans and plan-fulfilment reports.

[a] Sitework. See footnote a to table 3.4.7.

[b] At constant prices.

[c] Net output. For the German Democratic Republic includes food processing.

[d] Data refer to the draft plan, as reported by the Chairman of the Planning Commission, see *L'Expansion*, Paris, 5-18 December 1980, No. 160.

[e] Distributed NMP.

[f] Calculated on the basis of 1980 level reported.

centage points below the implied target rate for 1980. Only Bulgaria reached the rate of growth laid down by the annual plan (5.7 per cent). The growth of NMP in the German Democratic Republic showed a slight acceleration in 1980 (to a rate of 4.2 per cent as against 3.8 per cent in 1979). Czechoslovakia's economic performance in 1980 was similar to the previous year (3.0 per cent growth of NMP). The other three east European countries experienced serious difficulties in organizing the planned operation of their national economies in the course of 1980. Romanian economic performance continued to slow down. A decelerating trend has characterized this country's development during the 1976-1980 five-year plan period, the net material product rising by 2.5 per cent or 8 percentage points less than in 1976. In Hungary, there was a decline of 0.8 per cent in terms of NMP in 1980—more than 8 percentage points below the rate of growth recorded in 1977. Some slowdown in over-all expansion was planned but the economic climate was clearly less favourable than originally foreseen. Poland recorded a negative rate of growth for a second consecutive year. The decline in economic activity was more pronounced in 1980 (−4 per cent as against −2.3 per cent in 1979), and the outcome considerably below the growth upturn of 1.4-1.8 per cent which had been scheduled for the year. This planned target rate, modest by historical standards, reflected policy to restore normal operating conditions in the economy. After the first half of the year, developments in industry, construction and foreign trade required some amendments of the targets; the plans for industry, construction and imports were revised downwards in July but a more ambitious target for exports was set. Disruptions in mining, the industrial and construction sectors, a heavy drop in agricultural output—in particular in crops—as well as difficulties in the supply of production inputs and consumer goods aggravated the economic situation in the second half of 1980 to such an extent that the planned development policies could not have been implemented. They were replaced by a set of new policy measures largely of an emergency nature, designed mainly as a response to the immediate problems of economic management.

In the *Soviet Union* the distributed national income, which is equal to resources distributed domestically for consumption and accumulation, rose by 3.8 per cent in 1980—a noteworthy increase compared with the 2 per cent rate of growth attained in the preceding year. The target rate of 4 per cent was almost achieved.[113]

Developments in the Byelorussian SSR followed trends similar to those of the Soviet economy as a whole; the reported 3.6 per cent rate of growth was only 0.6 percentage points higher than in 1979 and almost half the target for 1980. In the Ukrainian SSR the pattern of economic performance was different. There was no acceleration in the rise of NMP, and growth, at 1 per cent, was the same as in 1979 and considerably short of the 3.5 target rate. In both republics agricultural performance was poorer than for the Soviet Union as a whole. Moreover, in the Ukrainian SSR, the 2.2 per cent rise in industrial output was also below the Soviet all-Union average. The profile of over-all economic expansion in both republics was thus largely the same as in 1979, when it was held back by lagging agricultural performance and a slowdown in industry.

In general, the region as a whole experienced a dynamic pace of growth since 1976 in accordance with changed external and internal conditions. In the course of 1980, economic performance in all countries of the region was primarily influenced by *economic policies* aimed at improving the conditions of economic activity—by activating the qualitative, intensive factors of production and by redressing internal and external imbalances in order to ensure recovery from sluggish growth in the preceding year. These policies were based on the development strategy adopted in most countries during 1978, when the growth-impeding effect of changing and deteriorating economic conditions did not permit a straightforward continuation of the strategic options incorporated into the current five-year plans. With a view to maintaining a stable pace of long-run economic expansion, at a time when largely unpropitious conditions were expected, policy options to support and implement balanced growth were adopted everywhere in the region. This required some consolidation of resources in conformity with new development priorities in order to restore economic equilibrium on a national level. It was accepted in virtually all countries that the new development strategy could not be implemented without reducing the pace of over-all expansion. Marked reductions in the target rates for NMP and industrial production growth for 1979 and 1980 as compared with past years were features of the annual plans for these years.

The continuing and long-term character of the policy reorientation described above is indicated by an examination of the target rates of growth for NMP and industrial output set out in the draft guidelines for the 1981-1985 five-year plans of individual countries. Targets specifying rates of around 3 per cent in the growth of NMP were scheduled for 1981-1985 in Hungary and Czechoslovakia, as against the 5-5.5 per cent target rates adopted in the previous five-year plan. The proposed reduction in the corresponding rates in the Soviet Union is from 4.4 to 3.4-3.8 per cent,[114] and in Romania from 10-11 per cent to around 7 per cent. The guidelines for the 1981-1985 plan in Bulgaria published in February 1981, show an average annual target rate of 4.6-5.4 per cent of growth NMP in 1981-1985, which means a substantial planned slowdown both from the 6.2 per cent achieved and the 7.7 per cent targeted for 1976-1980 (see text tables on following page for the changes in NMP and on page 119 for changes in industrial output).

As mentioned earlier, economic performance in 1979 showed that imbalances in the economic structures in most countries of the region were of such a size and degree that the countries' capacity to adapt new policy orientations to actual conditions was rather limited and left little room for manœuvre. The pace of over-all expansion was vulnerable to small unexpected adverse changes in economic conditions at home or abroad, which could bring about falls in the growth rate to levels below what had been considered optimal in relation to underlying growth

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[113] Changes in domestically distributed resources reflect the effects of changes in the country's net foreign balance on growth in terms of NMP. The recovery in NMP produced was hence probably more modest than that shown above, trends in foreign trade during 1980 indicating that growth in NMP produced may have been around 3.5 per cent.

[114] Distributed NMP; guideline target as adopted in "Guidelines for the Economic and Social Development of the USSR for 1981-1985 and for the period ending in 1990", by the XXVI Congress of the CPSU in March 1981.

Growth of net material product
(Average annual percentage change)

Country	*1971-1975*	*Plan 1976-1980*	*1976-1980*	*Plan[a] 1981-1985*
Bulgaria	7.8	7.7	6.2	4.6-5.4
Czechoslovakia	5.7	4.9	3.7	3.0-3.2
German Democratic Republic	5.4	5.0	4.1	..
Hungary	6.2	5.4-5.7	3.2	2.7-3.1
Poland	9.8	7.0-7.3	1.6	..
Romania	11.3	10.0-11.0	7.1	6.7-7.4
Soviet Union	5.7	4.7	4.4	3.4-3.7
Byelorussian SSR	8.3	6.0	5.0	..
Ukrainian SSR	4.6	4.9	3.4	..
Eastern Europe	7.8	6.6	3.7	
Soviet Union and Eastern Europe	6.2	5.3	4.2	

Source: As for table 3.1.1.

[a] Tabular and textual references to "Plan 1981-1985" throughout this report relate to Guideline Targets.

potential and its activation under normal conditions. The rates of growth achieved in 1979 showed that these adverse changes in fact occurred, and affected all countries in the region but Bulgaria and, to some extent, the German Democratic Republic. The deterioration in economic conditions was, however, considered as exceptional and of a short-term character. Therefore, the plans for 1980 and economic policies in general pursued accelerated expansion as a global objective, particularly in industry. There were some exceptions: Bulgaria reduced its target rate for NMP and the German Democratic Republic slightly that for industrial output. And in some countries the fulfilment of planned targets was made conditional on "normal" conditions for economic activity, which most probably referred, above all, to weather-related factors. Modernization in managerial structures and the introduction of new measures and instruments into the economic mechanism, in particular in the field of prices, wage and incentive systems, investment, credit and foreign trade, were designed to raise the efficiency of management and to strengthen the role of economic criteria in enterprise operations.

As seen earlier, economic trends in 1980 were not uniform in the countries of the region. In the Soviet Union, Bulgaria and the German Democratic Republic development policies were largely successful, NMP rising by rates higher than in 1979 in the first two countries and by a rate equal to the plan target in Bulgaria (i.e. by 5.7 per cent, the highest growth rate reported in the region).

However, industrial expansion slowed down in Bulgaria, and that country and the Soviet Union reported a decline in agricultural production in 1980. In both countries construction activity expanded at a modest rate of 1-1.3 per cent. The German Democratic Republic recorded a positive rate of growth in agriculture and substantially stepped up output in construction. The plan target for industry was attained; the rise in NMP, though—at 4.2 per cent—short of the target rate by 0.6 percentage points, was the second highest rate in the region in 1980. In fact, if the economic performance in 1980 in these three countries is analysed by referring to a longer period of time, it might be noted that the process of adaptation to the new economic conditions which prevailed in general after 1973 has proceeded much more smoothly than in the other countries of the region. The pace of over-all economic expansion has indeed slackened and the rate of growth of NMP in 1976-1980 was 1.0 to 1.6 percentage points lower than during 1971-1975, but in other countries the slowdown generally exceeded, in some cases by a large margin, the 2 percentage point drop which is the implied shortfall compared with 1971-1975 for the region as a whole. Even annual fluctuations in the growth of NMP during the reference period were rather smooth (see chart 3.1.1). The important conclusion that can be drawn is that in these three countries the adaptation process did not call for a significant, almost qualitative change in the scale of development priorities, as has been the case in the others.

Clearly the ability of the Soviet Union to readapt its over-all growth pattern has been greatly assisted by the availability of domestic fuels in quantities well beyond its own immediate needs. The Soviet Union is—partly for this reason—less susceptible to external economic disturbances than the other eastern countries, and the volume of its total trade is also small compared with NMP. But development has been accompanied by comprehensive programmes of innovation in managerial structures, particularly in industry and agriculture, in all three countries—notably in Bulgaria and in the German Democratic Republic. The formation of scientific-production associations and territorial production complexes in the Soviet Union, of new industrial combines in the German Democratic Republic and the restructuring of the managerial echelons in Bulgarian industry to promote large-scale, concentrated and specialized production capacities, was either terminated or at an advanced stage by the end of the 1976-1980 period. The formation of agro-industrial combines and complexes, and of new managerial forms for agro-industrial co-operation, provided the institutional basis for furthering the process of intensive industrialization of agriculture and the creation of national food-producing complexes.

CHART 3.1.1

Changes in net material product and factor inputs
(*Indices, 1968-1972 = 100*)

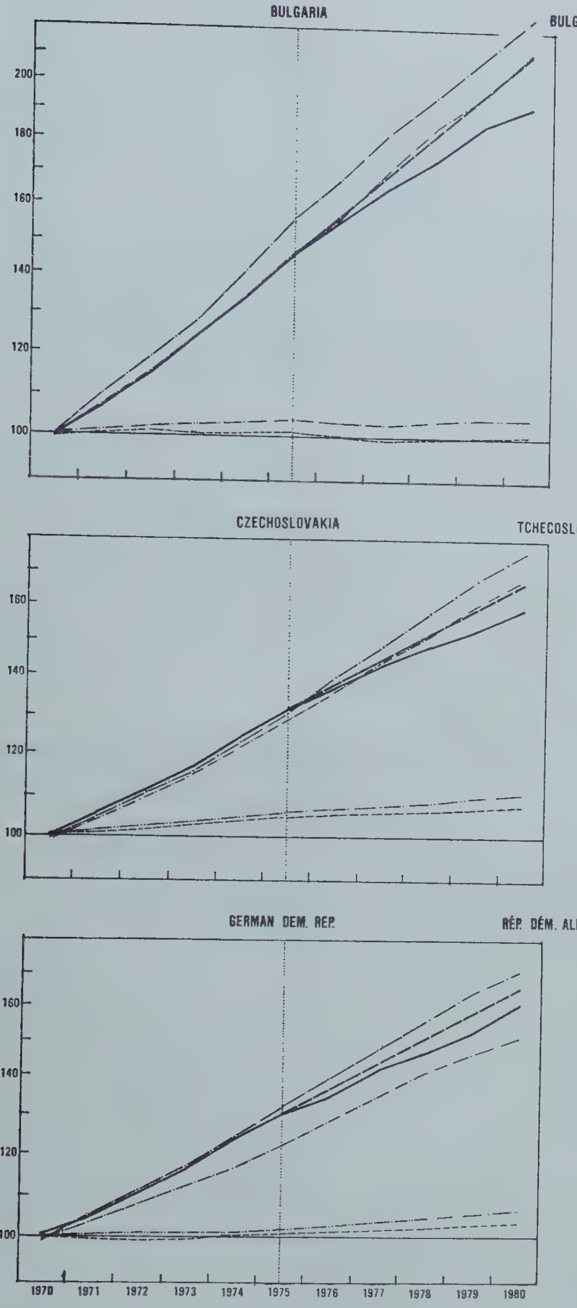


CHART 3.1.2

Efficiency indicators
(*Indices, 1968-1972 = 100*)

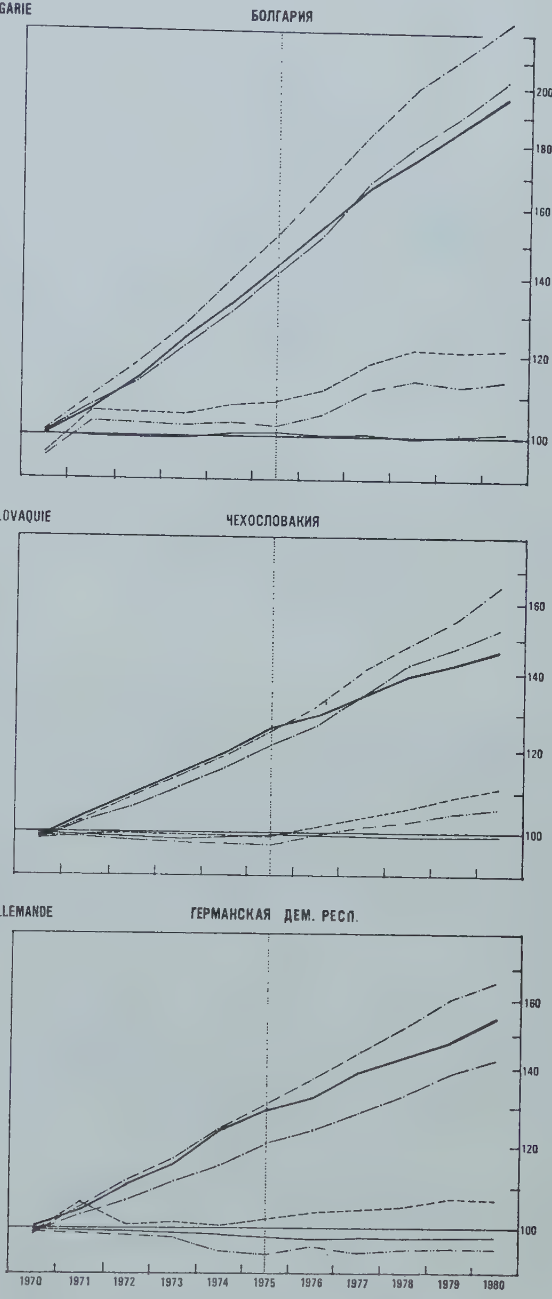


CHART 3.1.1 (*continued*)

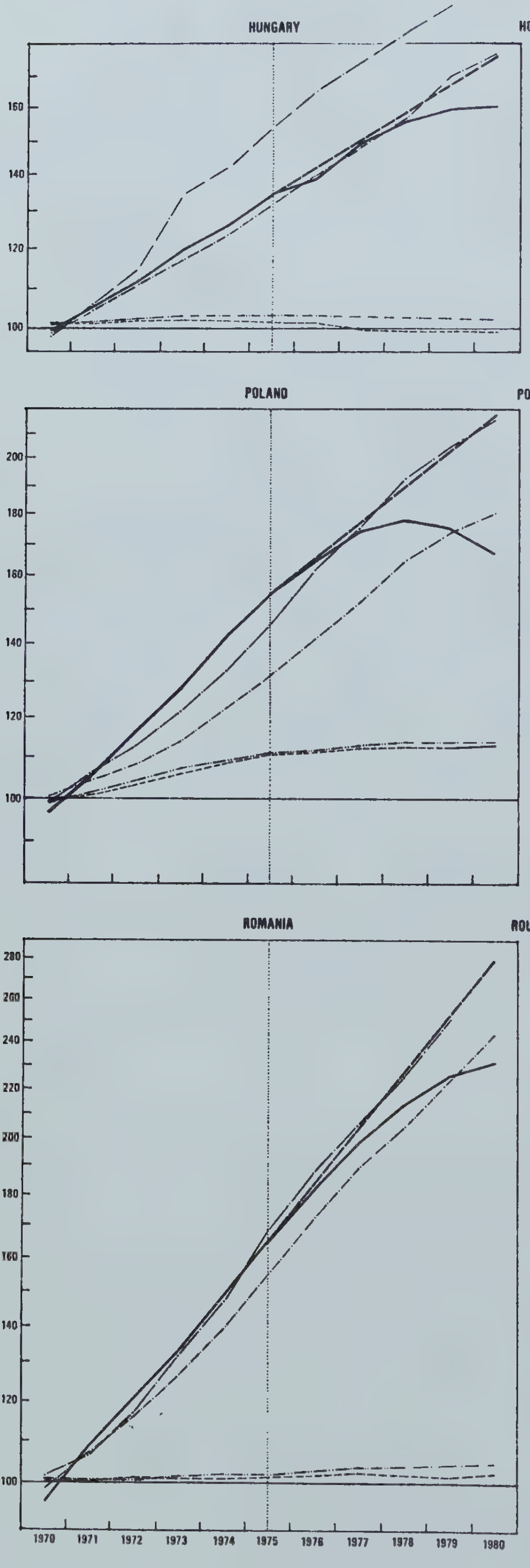


CHART 3.1.2 (*continued*)

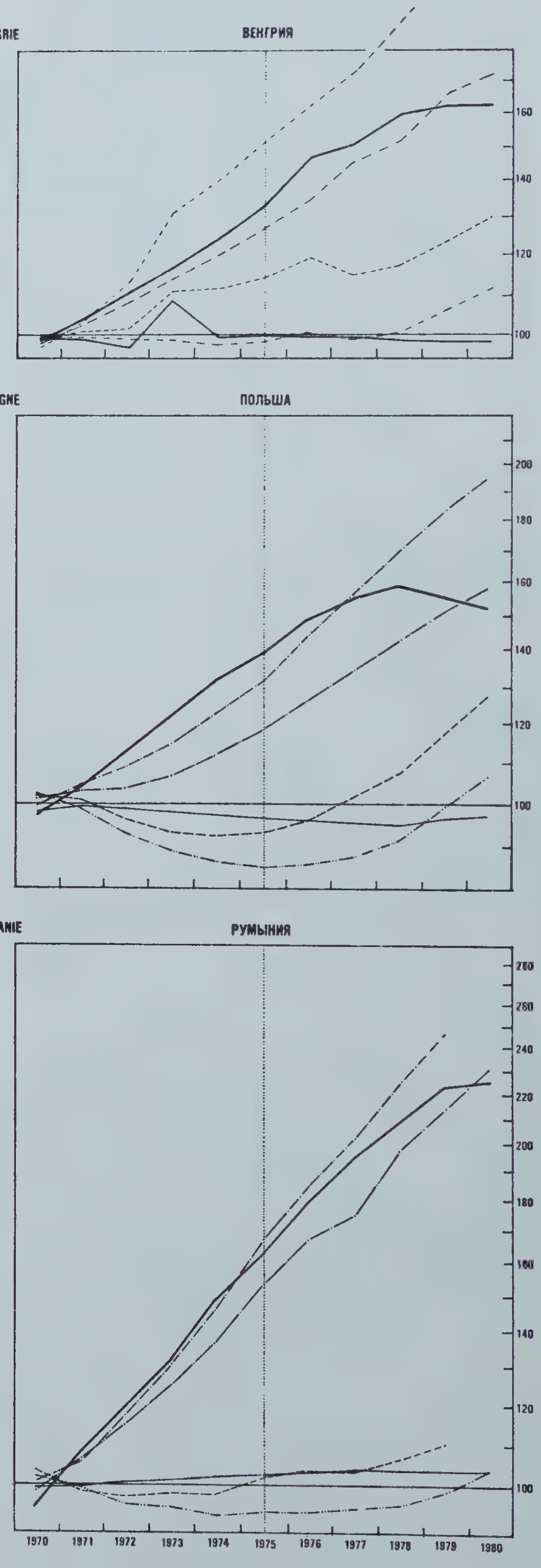


CHART 3.1.1 (*concluded*)

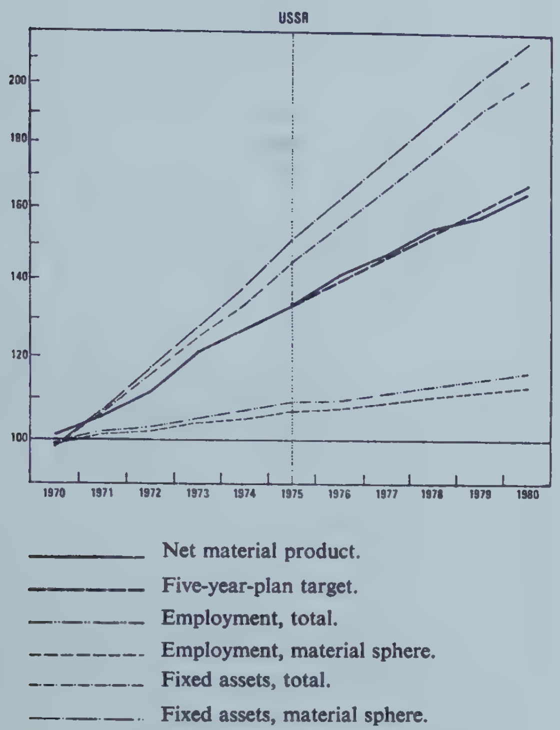
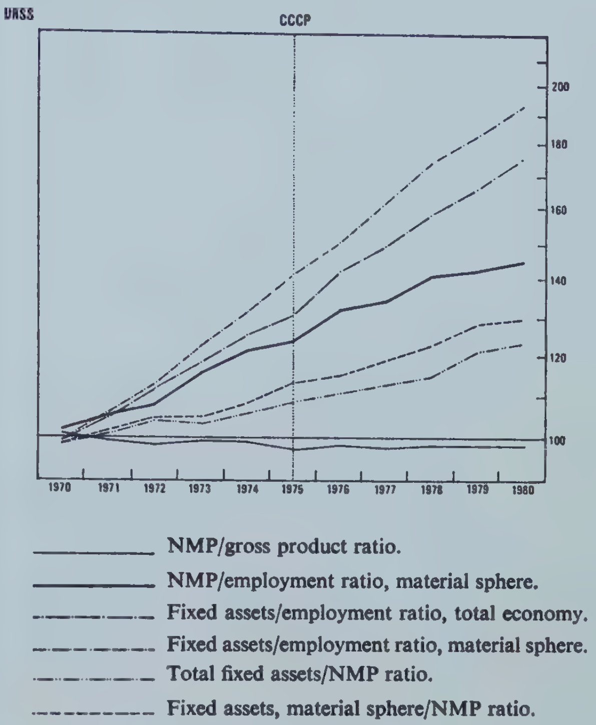


CHART 3.1.2 (*concluded*)



Source: National statistics.

In the four other east European countries, the decelerating trend was not halted in 1980. The rates of growth for NMP and industrial production were the lowest of any year during the 1976-1980 period. The extent of the slowdown was the most modest in Czechoslovakia, where the rate of growth of NMP (3 per cent) was only slightly lower than in 1979. But industry, and in particular construction activities, recorded a more pronounced deceleration. An excellent agricultural year, especially in crop production, contributed a great deal to the improvement of internal and external balances. Imports of grain, which amounted roughly to 2 million tons in 1979, may have been substantially reduced.

For foreign trade in general, Czechoslovakia's policy objective was to achieve import/export equilibrium to the extent possible. In fact, the deficit on total trade was considerably reduced (it amounted to $200 million for the first nine months of 1980), and in trade with industrialized market economies a surplus might have been recorded. Thus, the main policy issue has been how, within these limits, to step up economic efficiency, and in particular to raise labour productivity and accelerate technical innovation. It was intended to adapt production structures, above all in industry, and in particular in engineering, to changing conditions especially with regard to labour and material inputs and also in relation to trends in demand at home and abroad. Target development programmes at the beginning of the 1976-1980 period were focused on the modernization and restructuring of engineering and the development of some branches of electronics. Strong emphasis was placed on developing engineering capacities to boost exports. More recently, high priority has been given to the production of nuclear equipment, a highly capital-intensive branch of engineering. After three years (1976-1978) of stable advance of NMP (by roughly 4 per cent annually) and a relatively intensive expansion of investment activity (with growth rates of over 4 per cent), domestic resources did not permit the continuation of such an intensive period of expansion without adverse effects on domestic and external balances. The policy option adopted was to reduce the rise of investment to 1.8 per cent in 1979 and 1.4 per cent in 1980. The rate of over-all expansion was brought down to 3 per cent. A similar strategy has apparently been adopted for the 1981-1985 period, which indicates that the adjustments made in 1979 and 1980 might be the beginning of a new trend of a long-run nature.

Contrary to the intensive adaptation of managerial structures during the 1976-1980 period of the kind described earlier for other countries of the region, Czechoslovakia began introducing new planning and financial mechanisms in a number of large enterprises in 1978. The new mechanisms were introduced on a national scale from the beginning of 1981.[115]

Romania recorded the highest rate of growth in the region during the 1976-1980 period—both for NMP and also for industry. In 1980 the deceleration was very steep; there was a 2.5 per cent increase in NMP as against 6.2 per cent in 1979, 10.5 per cent in 1976 and an average annual rate of 11.3 per cent growth in the period 1971-1975. Similar movements took place in industrial production. Nevertheless, the 6.5 per cent rate of industrial growth attained in 1980 was, once more, the highest in the region. In construction, a radical decrease in the growth rate from 10.7 per cent in 1978 to 3 per cent in 1979 was largely a result of slower growth in investment spending, and of shifts in investment structure towards modernization. As the rise in investment in 1980 was even slower than in the previous year, construction activity might have expanded by some 3-4 per cent. The decline in agricultural production was considerable (−5 per cent), but agricultural performance was on the whole satisfactory during 1976-1980, when its volume increased by 26-27 per cent above the average for the preceding quinquennium.

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[115] See "Set of Measures to Improve the System of Planned National Economic Management", *Rudé Právo*, March 1980.

During 1980, the foreign trade balance deteriorated as imports rose by a higher rate than exports. The deficits on total trade and in trade with the industrialized market economies widened. But the main constraint on continued intensive development and industrial modernization was the relatively slow growth of domestic supplies, and in particular of home-produced raw materials and modern machinery. Thus dependence on imported raw materials rose, especially in the iron and steel and petrochemical industries. The situation in oil production was the most difficult because domestic production fell from 14.7 million tons in 1976 to 11.5 million tons in 1980, leading to a rise in imports from 8.5 million tons in 1976 up to 14.3 million tons in 1979.

In the investment sector a growth rate of only 4 per cent was reported in 1979 and an even slower rate of 3 per cent for the year under review. This followed three years (1976-1978) of intensive expansion, with a peak rate of almost 16 per cent increase in 1978. Structural policies have been linked, above all, with an intensive reorientation towards modernization and higher investment allocation to the raw materials-producing branches —including agriculture. Targets for 1981 and also for the 1981-1985 five-year plan stipulate a rate of 7 per cent growth of NMP, which means that the slowdown in economic expansion which started at the beginning of the 1976-1980 period is expected to be reversed.

Romania has implemented a new system of enterprise self-management and self-financing, but its introduction has apparently proceeded slowly.[116] On 1 January 1981 a new economic and financial framework came into force. The regulation of producer prices has also undergone some substantial changes.

In Hungary the 1980 plan target for NMP and industrial production was clearly designed to resist the declining trend apparent since 1977. Instead, a further economic slowdown took place. The decline of 0.8 per cent in the absolute level of NMP in 1980 was 2.6 percentage points below the already low, but positive, growth rate recorded for the preceding year. The adaptation of industrial production to new conditions clearly had little immediate success, since output also fell 1.7 per cent below the absolute level achieved in 1979. Construction activity probably also declined as anticipated in the annual plan. Agricultural production performed well, both in crops and animal output, but was not high enough to make good poor performance in other sectors. (In 1979 its share of NMP was 15.1 per cent, as against 59.5 per cent for industry and construction together.) Trends in Hungary's economy have apparently been largely affected by the development strategy adopted in 1978. The Hungarian economy has always been highly dependent on foreign trade. In the past, import surpluses helped to maintain high rates of over-all expansion at home, and such surpluses were not difficult to finance as the amount of foreign debt was very modest compared with the situation at present. The changed economic conditions after 1973 were not followed by changes in development strategy. It was believed that some quantitative readjustment together with a slightly more moderate rate of growth would enable the development strategy adopted after 1968 to be continued. Developments in the first two years of the 1976-1980 plan period, and in particular during 1977, provided enough evidence that economic expansion could not be maintained on the basis of only slight modifications of the old policies. The deficit in trade with western countries increased sharply and so did the amount of foreign debt in the period 1975-1978.

The problem of redressing trade and payments balances became the central issue of economic policy, as became clear with the adoption of a new development strategy in 1978. Domestically distributed resources were reduced by 6 per cent in 1979. A further decline was stipulated for 1980 and was even exceeded. In domestic policies, priority was given to maintaining the level of living standards achieved by 1978. This implied first a relative, and later also an absolute, reduction in the resources allocated for investment; a decline of about 7 per cent in gross fixed capital formation was reported in 1980. Consequently, domestic supplies were substantially reduced and output in almost all the main branches of industry declined (see table 3.3.3). Real income per capita and real wages per employee remained virtually at the 1978 level for a second consecutive year. There are no prospects for a rapid change in this situation.[117]

The policy of redressing external imbalances has been ranked among the guiding principles of the sixth five-year plan for the years 1981-1985 and it will require at least this period of time for the country to attain external equilibrium. In November 1980, the Central Committee of the Hungarian Socialist Working Party adopted as one of the guiding principles of the sixth five-year plan that "the larger proportion of the national income's growth will serve to improve the external equilibrium situation, and only the smaller part of it can be turned to material gross consumption, accumulation and consumption".[118] In quantitative terms, this means that NMP is planned to rise by 14-17 per cent (annually 3.5-3.7 per cent) and national income distributed by 3-5 per cent (0.6-1.0 per cent annually).

During 1976-1980, the economic mechanism has been re-examined every year with a view to stimulating the fulfilment of development objectives. New economic regulators have related most often to price formation, the wage system, investment and credit policies and also to the management of foreign trade and payments. From January 1980, the price system underwent a considerable reform, based on the principle of adjusting domestic prices to those on the world market.[119]

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[116] Speech by the Secretary General of the Romanian Communist Party addressed to the Plenary Session of the RCP Central Committee. *Scînteia*, 16 October 1980.

[117] "The sixth five-year plan has been drafted with a dual purpose in mind. On the one hand, we are aware that in the present period, which is marked by a major transformation, there can be no precise definition of all tasks because we are going in a direction that has not been followed before. On the other hand, it should be realized that this transformation will last for one, or perhaps two five-year plans". From the interview of the Deputy Premier and Chairman of the National Planning Office, broadcast by Budapest home service, 29 November 1980. *Népszabadság*, November 1980.

[118] *Népszabadság*, 15 November 1980.

In Poland, the pace of over-all economic expansion started to slacken as early as 1975, when a peak 10.5 per cent NMP growth rate was recorded. The slowdown was very steep and continuous up to 1978 (when NMP grew by 3 per cent). In the last two years, NMP declined by 2.3 and 4 per cent respectively. Whereas in 1979 output fell in agriculture and construction but rose by 2.7 per cent in industry, in 1980 the decline in the first two sectors was more pronounced (negative rates of around 9.5 per cent) and there was also a fall (−1.3 per cent) in the absolute level of industrial production.

These trends reflected the combined effects of several factors. A long-term element was the intensive and rapid programme to industrialize and modernize productive capacities launched at the beginning of the 1970s. This programme was based largely on massive imports of plant and technology, to a great extent from the west. The sectors of highest priority were steel, petro-chemicals, motor car production and ship-building, most of them highly capital-intensive and import-dependent.[120] In the wake of the energy crisis, these sectors proved to be the least resistant to world economic recession. In the event, possibilities of paying for imported capital goods from exports in changing world market conditions were reduced, and for some sectors they were virtually non-existent. The whole industrialization strategy became economically unviable and to proceed further along the same path could only increase external imbalances, foreign trade deficits and indebtedness.

Nevertheless, the same policy was followed for a few more years. This brought a deficit in total trade exceeding $2 billion yearly (with a peak amount of $2.8 billion in 1976). The amount of foreign debt rose rapidly. The year 1978 was the first in which a further deterioration in the trade deficit was checked; it was reduced to less than $1.9 billion, of which $1.3 billion in trade with the western industrialized economies. This trend was followed in 1979 and in 1980. In the latter year, the deficit with western countries was reduced to about $700 million. But the deficit on total flows was stepped up to more than $1.8 billion, trade with other CMEA countries turning from a surplus in 1979 to a deficit of about 3 billion exchange zlotys.

The pace of increases in domestically available supplies for consumption and accumulation (NMP distributed) started to slow down relatively more rapidly than that of NMP produced as early as 1977. In the following year they rose by only 0.7 per cent. In 1979 and 1980, they declined by 3.4 and 4 per cent respectively. In the allocation of resources, priority has been given to social policy objectives, which brought about an increase in the share of total consumption from about 66 per cent of total resources in 1976 to almost 78 per cent in 1980. Accumulation, and in particular net fixed capital formation, recorded a declining growth rate of −18 to −19 per cent. Thus, gross investment, which in 1978 expanded at a modest 1.6 per cent, was considerably reduced in 1979 (−7 per cent) and even more in 1980 (−10.5 per cent). Several revisions of investment projects were undertaken in order to speed up the completion of priority projects. The share of fixed assets brought into operation rose from 72.2 per cent in 1976 to 90.2 per cent in 1979, with a shift to increased completion of investment projects in the non-material branches.[121]

Income and retail trade policies and inadequate supplies of consumer goods to home markets, particularly of meat, did not allow the tight supply situation to be redressed or the market to be brought into equilibrium. In recent years, the imbalances between consumers' demand and supplies deteriorated because the increase in money incomes exceeded the rise in supplies to the domestic market. Attempts to improve the situation gave only partial results and imbalances as a rule reappeared. In the second half of 1980, following the measures undertaken to solve urgent issues in social relations, the money income of the population rose by 10 per cent. On the other hand, in December it was estimated that supplies, which fell between August and November, might return to the December 1979 level. In other words, no growth took place. Prospects to reduce this imbalance in the course of 1981 do not look realistic. Analysis in the draft plan for that year refers to an increase of 2.5 per cent in supplies of all goods taken together. But money income during the year will rise by 17 per cent because of increases in wages and social benefits, while farmers' incomes will be augmented by rises in procurement prices.[122]

Although economic conditions had begun to change qualitatively as early as 1974, global development strategy in Poland was not modified and adapted to the new situation. Some provisions of the 1976-1980 five-year plans were considered temporary, and it was stressed that with the improvement of economic conditions the development policies which were a feature of the early 1970s would be resumed. In 1978 a first more comprehensive adaptation was tried and the policy of so-called economic manoeuvre was adopted. It was considered that two or three years would be enough to remove the main economic imbalances. The plan targets for 1979 were aligned with actual rates in 1978—the year when agricultural production reached its highest level of the decade. External market conditions have not improved, targets could not be fulfilled and the over-all economic situation of Poland again deteriorated. It is, in this connexion, noteworthy that the system of economic management and the regulatory mechanisms have remained unchanged. Two attempts, in 1972 and 1976, to introduce a new financial mechanism on an experimental basis in large economic organizations were abandoned after one or two years.

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[119] See B. Csikos-Nagy, "New Price System in Hungary", *Acta Oeconomica*, vol. 23, No. 3-4, 1979, pp. 235-245.

[120] In 1972 a long-term (15 year) programme for the development of the national food complex was also adopted, but modernization of agriculture, which in Poland is predominantly based on small-scale family farming, lagged behind and did not succeed in raising agricultural production to up-to-date standards.

[121] It has been reported that by the end of 1980 the value of unfinished projects amounted to 1,500 billion zlotys, of which imported machinery awaiting installation alone equalled a value of over $530 million. These figures show the size and intensity of disproportions in the investment sector.

[122] *Trybuna Ludu*, 23 December 1980. Another reference points out that the market will be short of goods to a value of over 30 billion zlotys, since the draft plan proposes an increase of consumer goods and services of 251.5 billion zlotys and a projected growth in demand of 284 billion zlotys. *Trybuna Ludu*, 9 January 1981.

And not least important, the planned economy has not been adapted to take account of the existence of small-scale private farming which dominates Polish agriculture. Work on economic reform ultimately started in September 1980.[123]

(ii) Investment trends and policies

In 1980, the volume of resources allocated for investment (i.e. investment outlays in terms of constant prices) underwent considerable changes, not only in the size but also in the direction of expansion in most countries of the region. There were differences by comparison with 1979 and also with the planned path. Brisk changes in the volume of investment were envisaged by the annual plans for the year under review, reflecting the new orientation in investment policies; the highest priorities were assigned to redressing external imbalances and to increasing, or at least maintaining, consumption at current levels. In fact, these policies were not carried through and they were notably at variance with actual trends. Three countries—Czechoslovakia, Romania and the Soviet Union—planned a modest acceleration in investment outlays as compared with 1979. The planned rise was achieved in the Soviet Union, but fell short in the other countries. Bulgaria, after a year of declining volume, envisaged a percentage rise of 15 per cent, but the actual rate of increase in investment amounted to about 12.7 per cent. In the German Democratic Republic, the decelerating tendency which started after 1976 was planned to continue, and a zero target rate of growth was stipulated for 1980. Actual investment spending rose by more than 9 per cent. Hungary and Poland followed the policy of reducing investment expenditures, but the cutback was larger than planned in both of them (for detailed analysis see section 4, investment).

Investment performance in 1980 has not been exceptional by comparison with developments in other years of the 1976-1980 period. The divergence of annual rates between the countries of the region was of such size and the rates so varied that it is almost impossible to identify underlying trends.

The data in the text table refer to changes in 1978-1980 as compared with 1975, and the levels of capital expenditure for 1980 scheduled by the 1976-1980 five-year plans. While inter-country differences in the volume of investment growth during 1971-1975 had been wide, the spread was considerably reduced by 1978.

In most countries, the pace of investment expansion, in terms of the levels attained at the end of the two five-year periods, slackened considerably during the course of 1976-1980 as compared with 1971-1975. The only exception was in the German Democratic Republic, where the pace accelerated in the later period and exceeded the increase envisaged by the five-year plan. The most dramatic change was in Poland, where the volume of investment by 1975 had risen 2.3 times as compared with 1970, but declined by around 10 per cent in 1980 as compared with 1975. However, it was not until 1979 that the annual volume fell back to 1975 levels. Thus, in Poland, investment outlays rose from a total 2,220 billion zlotys in the period 1971-1975 to 3,115 billion zlotys in the subsequent five-year period, an increase of 40 per cent or roughly 7 per cent at an average annual rate. It remains the country with one of the highest investment ratios (only exceeded by Romania where the investment ratio averaged 40.7 per cent over 1976-1980 compared with 37.3 in Poland).

They key issue of investment policy has been how to raise its efficiency. The movement of ICORs, as in the previous years, again confirms that the expected improvements did not take place. On an annual basis, some improvements did occur in 1980 in relation to 1979 in the German Democratic Republic, Poland and the Soviet Union. But the changes were not of a size which could compensate for increasing ICORs in previous years, and the level of ICORs over 1976-1980 considerably exceeded that implied by the corresponding five-year plans in every country but the Soviet Union (see text table below).

The rise in NMP is thus becoming increasingly more costly in terms of investment resources. The ICORs implied by the targets contained in the proposals and draft guidelines for 1981-1985 indicate that this trend will continue in all countries of the region. Experience based on trends in 1980 confirms that stagnating or slowly increasing investment cannot generate steady over-all rates of expansion. Only three countries—Bulgaria, the German Democratic Republic and the Soviet Union—experienced accelerated investment expansion in 1980. (Two-digit rate of growth was attained in Bulgaria.) In the latter two countries, the percentage rise in NMP

Changes in the volume of investment

(*Indices*)

				1980	
	1975 (1970=100)	*1978*	*1979*	*Actual (1975=100)*	*Implied by five-year plan*
Bulgaria	151.1	115.6	112.9	127.3	125.9
Czechoslovakia	148.3	114.9	116.9	118.3	130.1
German Democratic Republic	124.1	118.9	119.9	131.1	122.7
Hungary	139.9	119.7	120.9	115.9	110.9
Poland	232.6	108.3	100.7	90.2	101.0
Romania	171.6	140.5	146.4	150.9	183.1
Soviet Union	139.8	114.9	115.7	119.9	115.9

Source: As for table 3.4.1.

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[123] The Commission for Economic Reform has repared the first draft, which was published as a special issue of *Trybuna Ludu* in January 1981.

Incremental capital-output ratios [a]

	1971-1975	*Five-year plan* 1976-1980	1976-1980	*Five-year plan* 1981-1985
Bulgaria	4.5	4.6	5.9	7.0
Czechoslovakia	5.9	6.9	8.6	10.3
German Democratic Republic	5.3	5.9	7.7	..
Hungary	5.7	6.0	8.9	10.1
Poland	3.7	4.7	10.7	..
Romania	3.0	3.7	4.9	5.7
Soviet Union	5.2	6.1	6.2	7.8

Source: As for table 3.1.1.

[a] Ratio of gross capital investment to the increase in net material product.

gathered pace, and in Bulgaria a high rate of growth was achieved. All other countries experienced a slowdown or a decline in NMP growth. The biggest relative change took place in Romania, where a drop in investment expansion from 11.7 per cent in 1977 and 15.7 per cent in 1978 was associated with an uninterrupted and considerable slowdown in NMP in those and subsequent years.

A large number of new investment starts which led to scattering of investment resources and to a rise in uncompleted projects, was combated with more success in 1980 than in previous years. Many, not systematic, references indicate a considerable cutback in the number of non-priority projects. New starts were reduced or completely halted in most countries. Most countries improved the share of completed projects in investment, with Hungary and Czechoslovakia recording percentage shares slightly below 90 per cent. In Bulgaria, the German Democratic Republic, Poland and the Soviet Union, the value of fixed assets brought into operation in 1979 amounted to more than 90 per cent of the value of the year's total investment. No improvement up to 1979 occurred in Romania, where the corresponding percentage share dropped to 76 per cent in that year.

Changes in the structure of investment by major sectors of the national economy were rather modest except in Poland and Romania. Since 1976, the trend in Poland has been to increase the share of investment in the non-material sphere and agriculture, and to decrease allocations to the material sphere. Exactly the opposite tendencies in structural shifts could be noticed in Romania, where industrial investment has received the highest priority; expenditure in the non-material sphere and agriculture has been relatively reduced. To a much more modest degree, shifts in priorities similar to the Romanian pattern were common to Bulgaria, the German Democratic Republic, the Soviet Union, Hungary and Cezchoslovakia, where a slight tendency to step up the relative share of investment in the material sphere has accompanied a largely stable share for agricultural investment. Shifts in investments priorities are most noticeable in industrial branches and sub-branches. For instance, in most countries of the region, the energy and fuel complex has increased its share recently indicating that it now enjoys the highest priority in industrial investment. Recently, strong emphasis has also been laid on investment in export-oriented branches and enterprises.

(iii) Developments in foreign trade and over-all economic growth

In 1980 foreign trade policies in the countries of the region pursued largely the objectives adopted in previous years and particularly in 1979. It has been generally recognized that over-all economic, in particular external, expansion cannot be sustained without increasing industry's participation in foreign trade. As a consequence of the increased stress placed on trade promotion in the past, accompanied by unbalanced development of imports and exports, trade deficits in all the countries rose rapidly, followed by increasing foreign indebtedness. This main objective was modified thereafter by policies aimed at redressing trade imbalances.

In most countries, the new orientation was adopted in the course of 1978. Economic conditions for its implementation were not, however, propitious. Strains intensified—to a great extent because of price trends and a consequent deterioration in the terms of trade of all countries but the Soviet Union. In fact, trade flows in value terms were heavily inflated. Real flows of goods and services expanded at much more modest rates, and in some cases not at all. In such countries, the process of reducing trade imbalances proceeded relatively quickly, implying a rise in the volume of exported goods.

The impact of such developments in trade on the internal balance of supply and demand was not always beneficial due to a relative and, in some cases, even an absolute reduction of some imports and an increased outflow of home-produced goods. Today it is acknowledged almost everywhere that the new trade policies are not merely of a short-term character. The restoration of economic equilibrium will require not only more time, but also some sacrifice with respect to over-all economic growth.

Total trade turnover in value terms expanded in 1979 at an estimated aggregate rate of 12 per cent. In most countries the rate of trade expansion was by and large close to that rate (see text table). Exports rose by more than 16 per cent and imports by approximately 11 per cent. The deficit in total trade of the region was eliminated but this reflected the high surplus recorded by the Soviet Union. In the east European countries taken together, the trend towards an increasing trade deficit was not curbed before 1980. Prospects for any significant improvement in economic conditions in general, and for trade in

Changes in trade turnover of east European countries and the Soviet Union
(Annual percentage change: trade turnover in value terms)

	1979	*Plan 1980*	*1980*	*Plan 1981*
Bulgaria	11.8	7.5	14.1	8.3
Czechoslovakia	10.7	7.0*	11.0	..
German Democratic Republic	11.2	12.0	10.0	16.0
Hungary	13.4	5.0*	2.0*	5.0*
Poland	9.2	9.5*	4.8	—*
Romania	19.1	14.8	23.2	10.0
Soviet Union	14.3	4.7	14.0	10.0
Total trade	12.0	7.5*	12.4*	..

Source: As for table 3.6.1.

particular, were not propitious. However, countries did not react to such conditions in a uniform way and policies for 1980 were geared within the framework of general objectives of the various kinds discussed earlier.

The 1980 target rates for exports and imports were released in only a few countries. As a rule exports were planned to expand at higher rates than imports. In total turnover for the region as a whole, it is evident that policy orientations were directed towards a slowdown in trade. The implied target rate amounted to 7.5 per cent for turnover growth, as against a 12 per cent growth in 1979. Only the German Democratic Republic and Poland scheduled some slight rise in percentage terms. Trends in 1980 did not follow the planned path, and expansion rates were close to the 1979 actual rates, with few exceptions. A considerable slowdown occurred in Hungary and Poland. While the trade deficit in Hungary was reduced (exports expanded by almost 5 per cent and imports declined by roughly 1 per cent during the first nine months of the year under review), in Poland the trends were the contrary. In 1980 exports decelerated from 12 per cent in 1979 to 3.4 per cent, while import growth expanded by a little more than 6 per cent. Trade turnover of the region as a whole expanded at an aggregate rate of 12.4 per cent.

If growth in total trade is compared with over-all economic expansion in terms of NMP, it is clear that the expansion of the volume of trade turnover in 1980 contributed less than in the past in most countries. This was the case in Bulgaria, the German Democratic Republic and the Soviet Union, and, though to a lesser extent, in Czechoslovakia.

Whereas in value terms total trade turnover in the region as a whole rose by roughly 12 per cent in both 1979 and 1980, developments in volume terms developed differently. In 1979, the volume of total trade rose by more than 4.5 per cent, while in the first nine months of 1980 a price increase of more than 12 per cent limited the increment in the volume of trade turnover to about 2 per cent above the corresponding period of the preceding year. For the year as a whole, it probably remained at the same level as in 1979.

The low rates of growth of volume trade turnover applied to flows with the main trade regions. In January-September 1980, the value of intra-CMEA trade expanded by 8.3 per cent—in comparison with the same period a year earlier. But in volume terms a slowdown was recorded and there was possibly no growth in 1980. In trade with the industrial market economies, eastern exports may have increased by 1.5 per cent while imports remained at previous year levels. Export prices rose 29 per cent in 1980, and import prices by 15 per cent, which brought about a 10.4 per cent improvement in the region's terms of trade with these countries. On the other hand, trade with developing countries during the same period expanded rapidly—by 8.5 per cent for exports and 13.6 per cent for imports; price increases of 5.7 per cent for exports and 29.7 per cent for imports were recorded, the terms of trade for the region deteriorating by 18.5 per cent. It should be mentioned that trends in foreign trade prices were to a great extent influenced by the rise in oil prices, which adversely affected the east European countries but benefited the Soviet Union's trade balances.

Developments in exports and imports during 1980 were favourable to the improvement in trade balances in all east European countries except Poland. Moreover, Bulgaria recorded, for the second consecutive year, a surplus in total trade to the tune of almost $700 million on an annual basis—twice as big as in 1979. The other east European countries reduced their deficits. The most marked cutback was in Czechoslovakia, where a $200 million deficit was recorded, as against more than $1 billion in 1979. In Poland the deficit rose to $1,850 million, an increase of about $500 million. The regional structure of Poland's 1980 deficit has radically changed: in trade with the west the deficit was reduced from 5.2 billion exchange zlotys to 2.7 billion exchange zlotys (approximately $700 million). But in trade with the CMEA countries the surplus of 1.1 billion zlotys in 1979 was wiped out, and in 1980 a deficit of 3 billion exchange zlotys was recorded. For the east European countries taken together, the deficit was reduced from about $7 billion to $3 billion. In the Soviet Union, a trade surplus of around $5 billion was recorded—about $1.5 billion lower than the peak amount in 1979.

Western trade statistics indicate that in trade with west European countries the Soviet Union recorded a surplus of more than $2.5 billion in 1980, an increase of roughly $2 billion by comparison with 1979. Czechoslovakia also recorded a surplus in this trade, amounting to some $200 million. In trade with west European countries, a surplus was recorded by the German Democratic Republic. On the whole, the eastern countries' balances in trade with the west improved. This was so not only for the Soviet Union, which recorded a record surplus,

TABLE 3.1.2

Changes in distributed net material product

(Annual percentage change)

Country and period	NMP distributed	Consumption [a]			Net capital formation		
		Total	Personal	Social	Total	Net fixed capital formation	Changes in stocks
Bulgaria							
1976	0.7	6.4	6.5	6.1	−11.0	−14.2	−3.2
1977	2.2	5.9	6.7	4.2	−7.0	−3.8	−13.7
1978	1.8	5.2	5.4	4.8	−7.9	5.0	−38.4
1979	7.5	7.0	7.1	6.8	8.8	20.1	−36.9
Plan 1980. .	..	..	..	..	..	..	..
1980	..	..	..	..	..	..	..
Plan 1981. .	..	..	..	..	..	..	..
Czechoslovakia							
1976	3.1	3.4	2.8	4.9	1.7	2.5	−2.4
1977	1.6	3.6	2.8	6.1	−4.5	9.1	−56.1
1978	2.7	3.4	3.6	3.0	0.6	1.1	−2.7
1979	1.1	1.2	0.6	6.1	0.9	0.9	1.9
Plan 1980. .	2.2	..	0.5*	4.4*	..	..	..
1980	..	..	..	..	..	..	..
German Dem. Rep.							
1976	5.7	4.8	4.3	7.3	8.8	6.3	25.1
1977	4.8	4.7	4.4	6.5	5.0	4.5	7.8
1978	1.4	3.5	3.1	2.4	−6.1	2.6	−48.9
1979	1.4	3.4	4.1	0.7	−4.8	0.4	−64.7
Plan 1980. .	..	..	..	..	..	..	..
1980	..	..	..	..	..	..	..
Plan 1981. .	..	..	..	..	..	..	..
Hungary							[b]
1976	1.2	2.1	1.6	5.1	−1.4	−12.7	80.3
1977	6.2	4.6	4.7	3.7	11.1	−0.1	50.3
1978	10.0	4.9	3.6	13.3	23.8	10.5	54.9
1979	−5.5	3.1	2.7	5.5	−25.2	3.7	−75.4
Plan 1980. .	−1.0	1.0-1.5*	1.0-1.5	..	−7.5*	..	..
1980	−2.4	0.1	0.3	—	−10.4	..	..
Plan 1981. .	−(0.5-1.0)	1.5*	1.5	..	−10.0	..	..
Poland							
1976	7.0	8.9	8.7	9.8	3.7	0.7	16.5
1977	2.7	6.8	6.6	7.8	−5.3	4.3	−40.0
1978	0.7	1.7	1.0	5.4	−1.4	−3.3	10.2
1979	−3.4	3.1	3.2	2.4	−18.0	−14.2	−39.5
Plan 1980. .	1.0-1.3	2.5	3.0			−14.0	
1980	−4.0	1.0	1.0	1.0	−18.1	−19.0	−11.2
Plan 1981. .	..	..	..	..	..	..	..
Soviet Union							
1976	5.0	4.2	..	..	6.0	..	..
1977	3.5	3.8	..	..	2.7	..	..
1978	4.0	3.7	..	..	4.1	..	..
1979	2.0	4.6	..	..	−4.5	..	..
Plan 1980. .	4.0	..	..	..	..	..	..
1980	3.8	..	..	..	..	..	..
Plan 1981. .	3.4	..	..	..	..	..	..

Sources: As for table 3.1.1.

[a] Data for personal consumption refer to consumption of the population. Data for total consumption refer only to the consumption of material goods by institutions meeting the collective needs of the community as a whole (i.e. excluding services).

[b] Including changes in work in progress.

but also for the east European countries taken together, which slashed their deficit by $1.6 billion in 1980 (see text table). (However, according to east European and Soviet sources, the levels of the trade surpluses were smaller and those of deficits were higher.)

Trade balances
(*Million US dollars*)

	Total trade (eastern sources)		*Trade with the industrialized market economies (western sources)*	
	Eastern Europe	*Soviet Union*	*Eastern Europe*	*Soviet Union*
1976	−5 925	−3 498	−3 961	−3 456
1977	−6 237	4 239	−3 087	−1 790
1978	−6 557	1 576	−4 350	−2 278
1979	−6 926	6 426	−3 618	478
1980 [a]	−3 000	5 000	−2 029	2 516

Source: As for tables 3.6.1 and 3.6.5.

[a] Nine months at an annual rate.

In 1980, the *financing of trade* with western countries was considerably improved. The aggregate current account deficit of eastern Europe and the Soviet Union amounted to an estimated $4.2 billion, a drop of about $1.5 billion as compared with 1979 (see table 3.6.6). This was less than half the deficit of almost $10 billion estimated for 1975. The two major components of this deficit had opposite tendencies: the deficit in merchandise trade was reduced to a low $800 million (as compared with $3.1 and $6.6 billion in 1979 and 1978), whereas the deficit on services attained a record negative figure of $4.8 billion, reflecting the enlarged financial flows related to the servicing (payment of interest and repayment of capital) of east European and Soviet foreign debt.

By the end of 1980 the loans outstanding amounted to an estimated $67 billion, an increase of $7 billion compared with the end of 1979. The increase in the amount of foreign debt from 1975 (when it amounted to $28 billion) is primarily the result of deficits accumulated in merchandise trade with western countries over the years. Policies to redress imbalances not only in trade but also in financial flows have thus become more demanding in terms of resources. As stated in last year's *Survey*, the increase in the region's economic potential is not sufficient to allow the mobilization of all the resources necessary to redress external imbalances without incurring some slackening in over-all economic growth. This became apparent initially as early as 1979, and was clearly evident in most countries during 1980 as well.

(iv) Trends in the allocation of resources for domestic use

Developments in foreign trade affected the growth pattern of *national income distributed*, which was consistently at variance with changes in NMP (national income produced). In most east European countries the relative rise in domestically distributed resources during 1974 and 1975 as a rule surpassed and in some cases considerably exceeded the percentage growth of NMP. This largely resulted from the more rapid expansion of imports in comparison with exports, trends which inevitably led to increasing trade deficits from one year to another. For most countries the turning point in trade policies occurred in 1976, when measures were introduced to reverse trade trends in order to redress external imbalances. In these countries, national income distributed grew at rates substantially below those of NMP (see table 3.1.2). After 1978 these tendencies became even more strongly marked. In 1979 the only exception to such developments was Bulgaria. The biggest break with past trends took place in Hungary: after two years of slower percentage rises in national income distributed, a 4.2 per cent rise in NMP was associated with a 10 per cent increase in domestically distributed resources in 1978, which resulted in an enormous rise in the trade deficit of roughly $1 billion (it jumped from $700 million in 1977 to $1,700 million in 1978). However, trends in Hungarian foreign trade were reversed to such a degree that the deficit in 1979 was slashed back to its 1977 level. Consequently, NMP rose by a modest 1.8 per cent while the national income distributed declined by 5.5 per cent. In 1980 similar trends continued. Declining growth rates were recorded in imports in value terms (which were even more marked in volume terms), and the deficit was cut back again from $753 million in 1979 to $610 million in 1980. The effects on over-all expansion were severe; NMP declined by 0.8 per cent and national income distributed by as much as 2.4 per cent. The recovery planned for 1981 involves a further but more modest cutback in domestically distributed resources, envisaged at between −0.5 and −1.0 per cent. Similar trends took place in Poland, where after 1976, the percentage rise of both macro-economic aggregates fell rapidly, recording negative growth rates in 1979 and 1980. In the latter year a −4 per cent decline was reported for NMP and national income distributed.

Data are not available for 1980 for the other east European countries. Developments up to 1979 followed a similar pattern of slower percentage rise in national income distributed. In 1980, NMP rose faster than the previous year only in Bulgaria, but this appears to be a short-term break in the dominant trend. All other countries probably experienced growth of domestically distributed resources at rates below those of NMP. The cumulative effect of these developments since 1975 shows that, among east European countries, the divergence between the respective growth rates was smallest in the German Democratic Republic (about 3 percentage points) and largest in Bulgaria (15 percentage points). Soviet economic performance resulted in a low, 4 percentage point difference (see text table).

Such relative movements indicate continued progress in these countries in eliminating global trade deficits. Resources allocated for domestic use, which in the past exceeded the value of NMP have been relatively reduced in recent years and have thereby come closer to the level of domestically produced output—a tendency apparent in all countries. However, though such developments make possible the restoration of global balances at home and abroad, they do not provide the material and financial resources for a steady pace of over-all expansion unless global efficiency and productivity are improved to such a degree that they offset the consequences of more restricted growth in domestic supplies. This condition has not been fulfilled in recent years, and this was also true for 1980 in most countries.

In the Soviet Union, the relationship between changes in national income distributed and NMP was virtually constant. In terms of current prices the share of national income distributed has fluctuated within narrow limits around 98.5 per cent of NMP since 1970:

	NMP (at current prices in billion roubles)	National income distributed (at current prices in billion roubles)	Percentage share
1970	193.5	190.5	98.4
1975	289.9	285.5	98.5
1978	426.3	420.6	98.7
1979	438.3	430.9	98.3
1980	455.0*	450.0	98.9

Source: As for table 3.1.1.

During 1976-1980 policies for allocating resources to final domestic uses in all countries of the region were designed to give the highest priority to improving the material and social conditions of the population. This translated into an increase in the share of consumption in domestically available resources, reversing trends in the previous quinquennium, when priority was given to allocations for investment (social accumulation). This had been particularly the case in Bulgaria, Czechoslovakia, Hungary and Poland; only in the German Democratic Republic and the Soviet Union has the tendency to increase the relative share of consumption been a regular feature since the beginning of the 1970s (no data are available for Romania). In 1979 consumption attained its highest share since 1975 in all countries—some 74 per cent in Poland and 80 per cent in the German Democratic Republic. In the other east European countries, consumption approximated 76 per cent of total allocations, while the Soviet Union reported 75 per cent (table 3.5.6). In the course of 1980, consumption's share was stepped up to 78 per cent in Hungary and Poland, while in the Soviet Union, it remained unchanged at 75 per cent. Romania envisaged a share of 67 per cent in the 1976-1980 plan and its actual allocation was apparently close to the 2:1 ratio planned; in the guidelines for economic and social development during 1981-1985, a shift in favour of consumption to a 70:30 ratio is envisaged. The annual plan for 1981 in Romania stipulates a 69 per cent share for consumption.

However, since 1976 there has been a sustained fall in the rate at which consumption's share has grown. This is a consequence of the slowdown in over-all economic expansion and particularly in the percentage rate of increase in domestically allocated resources. The lowest rates of growth of consumption over 1975-1979 were recorded in the last year of the period. The two exceptions were Bulgaria and the Soviet Union, where the lowest rates were reported for 1978. In Poland and Hungary, declines in the absolute level of national income distributed in 1979 did not affect consumption accordingly; on the contrary, in Poland consumption rose by 2.5 per cent, and in Hungary, where the policy of maintaining at all costs the consumption levels achieved in 1979, was successfully achieved (a zero rate of growth was reported). In 1980, similar tendencies were noted in both countries.

The text table below provides information on the cumulative outcomes of growth components for the period 1976-1979. In all countries consumption rose faster than national income distributed. The biggest percentage rise was recorded in Bulgaria (27 per cent over the four years under consideration) and in Poland (22 per cent). In Poland, the percentage rise in consumption by far exceeded that of NMP; the already large divergence between them in 1979 (ratio of 1.08:1) widened in 1980 (ratio of 1.13:1).

Structural shifts within consumption between personal and social expenditures were slightly in favour of the former. In all countries, the trend to raise the share of both personal and social consumption in distributed national income has in general persisted throughout the review period. The exception is Czechoslovakia, for personal consumption. However because of differences in coverage and definitions, intercountry comparisons can sometimes be misleading.

Policies relating to consumption are closely linked with the policies to improve the consumer supply situation—in particular to reduce strains and imbalances by long-term strategies to equilibrate consumer supply and demand. In recent years increasing attention has been paid to consumer supply through measures to promote small-scale

Relative rise of produced and distributed NMP, consumption and net capital formation in 1979

(Indices, 1975 = 100)

	NMP		Consumption		Net capital formation	
	Produced (1)	Distributed (2)	(3)	Ratio of columns (3) to (1) (4)	(5)	Ratio of columns (5) to (1) (6)
Bulgaria	127.5	112.5	126.9	99.5	83.0	65.1
Czechoslovakia	116.4	108.8	112.1	96.3	98.5	84.6
German Democratic Republic	117.2	114.3	116.9	99.7	102.6	87.5
Hungary	118.1	111.7	115.5	97.8	101.4	85.9
Hungary [a]	117.0	109.0	115.6	98.8	90.9	77.7
Poland	113.2	106.9	121.9	107.7	79.4	70.1
Poland [a]	108.7	102.6	123.1	113.2	65.0	59.8
Soviet Union	119.2	115.3	117.3	98.4	107.1	89.8
Soviet Union [a]	123.7	119.7	..	..	..	..

Sources: As for table 3.1.1. [a] 1975-1980.

and local industry and improve services, adopted in several countries in the course of 1979 and 1980. Programmes to promote territorial self-sufficiency in the supply of agricultural products, in particular vegetables, fruit and livestock products, were adopted in Bulgaria as early as 1977, and in Romania by the end of 1980. Policies relating to wages, farmers' incomes and social benefits and also consumer prices underwent many changes and revisions during the last four years in most countries (see section 5, consumers' incomes and supplies).

These developments in the formation and allocation of national income and the priorities granted to consumption considerably affected allocations to *net capital formation.* Trends contrary to developments in consumption characterized the 1976-1980 period: the share of net capital formation in general declined. Only Poland recorded a share above 30 per cent during 1976-1978 but this fell to roughly 22 per cent in 1980, and the prospect is for a reduction to less than 20 per cent in 1981. During this period similar tendencies became apparent in Hungary, with a 22 per cent share reported in 1980. A further planned cutback to 18.4 per cent is anticipated for 1981. In brief, these developments in net capital formation result from the slowdown in over-all economic expansion, and from shifts in global objectives in favour of foreign trade (reduction of external trade deficits) and living standards (increasing the share of consumption in national income). Such policy options left a smaller absolute level of resources available for net capital formation in most countries. In Poland, for instance, the amount fell in 1979 to only 83 per cent of the 1975 level and to only 65 per cent in 1980; similarly in Hungary, the figure fell to 91 per cent of the 1975 level in 1980. Only in the German Democratic Republic and the Soviet Union were allocations to net capital formation larger than in 1975 (increases of 2.6 and 7 per cent respectively). In general, net capital formation is only one component of gross investment, the second one, amortization, has been increasing proportionately to the rise of fixed assets. Thus, the relative slowdown in gross fixed capital formation was much smaller.

(v) Policy objectives for 1981

In east European countries and the Soviet Union the policy objectives for 1981 have been set primarily with reference to economic trends in 1980. It has been accepted in general that economic conditions, and particularly the world market situation, will not improve. Thus policy is directed to consolidating gains so far achieved, while the pace of over-all expansion is to be regulated and structured in accordance with the magnitude and complexity of problems arising from recent developments. The removal of structural imbalances, the activation of available production capacity and the encouragement of trends likely to result in stable and balanced economic growth have been the major options retained in formulating production, structural and investment policies. The priorities given to redressing external balances and maintaining living standards have placed major constraints on resource allocation options.

For the region as a whole, the implied target rate of 3.5 per cent growth of NMP for 1981 indicates a slight acceleration as compared with the 3 per cent rise recorded in the previous year. But planned developments in the Soviet Union do not envisage any acceleration for 1981. The Soviet Union has set a 3.4 per cent target rate of growth in terms of national income distributed, which is 0.4 percentage points below the 1980 actual rate. The NMP targets in the Ukrainian and Byelorussian SSRs provide for buoyant over-all expansion at rates of 4.6 and 3.9 per cent respectively.

For the east European countries taken together, a considerable acceleration in total output has been envisaged: the implied aggregate NMP target growth rate is 3.6 per cent. Attainment of the targets would reverse the marked slowdown in over-all economic expansion which occurred in most countries and which was reflected in the low 1.1 per cent aggregate rate of growth recorded in that year. Policies with respect to the pace of growth differ between countries. Bulgaria has opted for a slowdown from 5.7 per cent growth in 1980 to a planned 5.1 per cent for 1981 and envisages a further, very slight relative decrease to 5 per cent in 1982. These objectives are within the NMP target range of 4.6-5.4 per cent growth planned for 1981-1985. A slight slowdown of 0.2 percentage points as compared with 1980 has also been stipulated in the 1980 plan for Czechoslovakia, which set a target rate of 2.8 per cent. This objective, as compared with the further planned NMP growth rate of 3.0-3.2 per cent for 1981-1985 as a whole, indicates that the over-all expansion will accelerate after 1981. The German Democratic Republic has envisaged a slight acceleration, setting a 1981 target of 5 per cent. This would, if achieved, continue the accelerating trend which started after 1978. A more notable acceleration has been laid down for Romania in 1981, the target rate of 7 per cent NMP growth indicates the intention to re-establish rates of expansion close to performance in 1976 and 1977. This high rate accords with the development strategy underlying the new 1981-1985 five-year plan, which stipulates a rate of expansion of 6.7-7.4 annually. In Hungary the 1981 plan schedules a recovery from the decline in the absolute level of NMP experienced in 1980. The NMP growth target has been set at 2-2.5 per cent—though this is considerably below the five-year plan target rate of 3.4 to 3.7 per cent provided for the period 1981-1985.

The Polish annual plan for 1981 has not yet appeared. In October 1980 the Polish Sejm adopted a new procedure for setting plan and budget guidelines. The discussion in the Sejm will begin at the same time as the preparation of guidelines, rather than after the government has presented the draft plan. The Commission for the Economic Plan, Budget and Finance, has set up five inter-commission teams—for investment, the food complex, foreign trade, social policy and the state budget. On 19 December 1980, the draft plan and budget for 1981 were submitted to the Sejm, which adopted a central budget covering the first quarter of 1981 only; provisions for the rest of the year will be presented thereafter.

It was reported that the draft plan stipulates a 1.5 per cent increase in NMP for 1981. The leading current policy priority in Poland has been to improve the supply situation. Nevertheless, the plan also stressed the social aspects of development policies, and under its provisions the share of consumption in the national income is planned to increase from 78 per cent in 1980 to almost 83 per cent in 1981. Agriculture was accorded priority treatment, and new "Guidelines on Agriculture and Food Policy" were adopted in January 1981. In accordance with these guidelines, industrial capacity for producing agricultural inputs, and also food processing capacities, are to be doubled during 1981-1985. Investment outlays on agriculture are to amount to 30 per cent of total investment expenditures.

Another major objective was directed towards the improvement of external balances. Emphasis is placed on increasing exports. Recent falls in sales of coal, copper, silver, cement and also food and agricultural produce will have to be made good in order to fulfil this objective. For 1981, however, a target of 5 per cent for total export growth has been adopted. In trade with western countries, exports are planned to grow by 12 per cent. On the other hand, a 3 per cent cut in the level of imports has been planned. The biggest reduction is decreed for imports of industrial machinery and equipment (−10 per cent), while imports of food and agricultural products are expected to increase by one-third.[124] If export and import plans are achieved, the balance of payments deficit should fall to 500 million exchange zlotys. It is planned to reduce the Polish deficit on east-west trade to 2 billion exchange zlotys (about $320 million). Exports of services and construction activity abroad is planned to show a surplus of about 1.5 billion zlotys. Finally, a three-year stabilization programme to restore economic equilibrium is under preparation. At the eighth Plenary Session of the Central Committee of the PUWP held in February this year, it was stated that developments in January do not indicate any improvement in economic performance. It was noted that the present situation can no longer be considered as the result of past developments only; it is also the result of recent practices.

In general, it appears that in all countries of the region the economic conditions in 1981 are considered likely to be unfavourable to economic performance. The relatively reduced supply of domestically produced resources is to be allocated for final use so as to ensure that the global volume of investment outlays will be reduced in absolute terms in Hungary and Poland. It will entail slower growth in Bulgaria (from a 12.7 per cent increase in 1980 to 3.7 per cent); and the German Democratic Republic (from 9.4 per cent increase to 2.5 per cent); and maintenance of the 1980 level in Czechoslovakia. Of all the east European countries, only Romania envisages a slight relative acceleration—from 3.1 per cent growth in 1980 to 4.4 per cent in 1981.

After two years of rather sluggish investment expansion, the Soviet Union has provided for 5.3 per cent growth in 1981. There is no systematic information on the planned structure of investment allocation by major sector and branch. As in the past, the main policy guideline is to step up investment for modernization and re-equipment as against investment in new projects, and to concentrate investment resources on the completion of priority projects already begun. Further work has been stopped on a number of projects already in progress. In some countries, such as Hungary, no large new starts are planned.

There will thus be increasing strain on supplies of inputs for existing capacities. The tight labour supply situation does not show any sign of easing (see chart 3.1.2). Participation rates are already very high in all countries—in 1979 they exceeded 50 per cent of the total population in the Soviet Union and the German Democratic Republic. Only Poland and Romania reported rates as low as 46-47 per cent; in the other countries, they were between 47-49 per cent. It has been reported that in Czechoslovakia only 260,000 women and young people still at school are not in employment out of a total of 8.7 million people of working age; the total increase in the labour force during 1976-1980 amounted to 253,000 people, but an increase of only 148,000 people is expected for 1981-1985. In the German Democratic Republic attention has been paid for several years to the reorganization of jobs in order to release labour for new work. In Hungary 120,000 workers left the industrial labour force and around 70,000 people left the construction industry during 1976-1980, and this trend is continuing. Some 76,000 jobs were eliminated in the first half of 1980 as part of a government plan to streamline industrial production. Whereas during 1976-1980, the number of employed in the Soviet Union rose by around 2 million annually, during the coming five-year period new job entrants will amount only to about 4 million, or roughly 800,000 annually. According to reports, the Soviet economy was short of about 2 million workers by the end of 1980, which is however less than 2 per cent of total employment. But the shortages are more significant in new development projects in the region east of the Urals, and these areas will need between 800,000 and 1 million extra workers annually.

An increase in labour productivity is the only factor which can compensate for reduced labour inputs and maintain stable rates of economic expansion. Plans for 1981 provide that labour productivity will contribute a large share to the creation of additional output, but only in a few countries is its share expected to rise.

Strains in energy supplies were reported in several countries. Many references indicate that energy saving programmes have produced significant results in enterprises and production sectors, but they are not large enough to alleviate existing imbalances. In 1980 the rise in energy production—particularly electricity generation—was rather high in Bulgaria, the German Democratic

Changes in labour productivity

(*Annual percentage change*)

Labour	*Bulgaria*	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1980	5.5	2.5	4.5	1.8	−2.0	1.5	2.1
Plan 1981	4.8	2.6	5.0*	2.7	..	6.0*	2.2*

Source: As for table 3.1.1.

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[124] This will include, most probably, the purchase of some 400-500,000 tons of meat, costing roughly $1 billion. Domestic supplies are evaluated at 1.1 million tons for 1981. Reference was also made to the possible introduction of a programme for meat rationing.

Republic and the Soviet Union. This factor appreciably influenced economic performance in these countries.

Agricultural supplies in 1981 will deteriorate in most countries as a consequence of production trends in 1980. A decline in agricultural production was recorded in all countries except Czechoslovakia and the German Democratic Republic. This was largely a result of poor crop production performance, but the drop in total production was moderated by better performance in the livestock sector. After a long period of growth, declining output has been reported in this sector in Poland, Romania and the Soviet Union. Reduced supplies from 1980 crops will require additional imports of grains. It has been estimated that for the 1980/81 economic year purchases of foreign grain may amount to 10 million tons in Poland and in the Soviet Union they will probably remain at the previous year's level. Czechoslovakia, which had record crop production in 1980, nevertheless plans zero growth in livestock production for 1981.

Though there are exceptions, the contribution of imported material inputs to domestic supplies as a whole will remain rather limited. The steps taken to increase countries' self-reliance in some sectors—notably agriculture and fuel—result largely from the payments imbalances caused by past imports of the corresponding products. Most of the 1981 plans for increased foreign trade are given in terms of trade turnover, underlying which are high growth targets for exports and modest increases for imports. The targets for Poland's trade have already been mentioned. For other countries, foreign trade targets for 1981 are available only in the case of Hungary and Romania. In Hungary, export expansion is planned at 7.5-8 per cent, an acceleration compared with the 4.9 per cent recorded in 1980. Estimates suggest that a 2 per cent increase in imports is probably envisaged. In Romania export expansion is set at a 21 per cent increase in 1981, and a zero growth target for imports follows the high rate of expansion—exceeding 20 per cent—registered in 1980.

Annual plans for 1981 continue to stress the long-term nature of current policy orientations. This is particularly the case in two decisive areas of economic development—investment and foreign trade. It should be mentioned that the social component of economic development has gained in importance in all countries compared with previous years. It has influenced not only policies relating to incomes, consumer prices, market supplies, housing programmes, etc., but has also had repercussions on the plans for modifying the investment structure, and for bringing about a certain shift in industrial production in favour of industries producing consumer goods.

2. AGRICULTURE

(i) Growth of output

In 1980 agricultural production rose in Czechoslovakia, the German Democratic Republic and Hungary, falling in all other countries below the levels registered in 1979. The last year of the 1976-1980 five-year plan period was difficult for agricultural performance in the east European countries. The main crops over large regions suffered serious damage from natural calamities and adverse climatic conditions. Spring came later than usual. Because of unseasonably cold weather, spring sowing and vegetation of the crops were retarded by two to three weeks. Winter crops survived the winter well and promised a bumper harvest. Later on, mainly in the Soviet Union, rain and storms strongly affected winter crops in the northern regions and drought damaged them in the Ukrainian SSR. Heavy rains flooded millions of hectares of agricultural land in Poland, Czechoslovakia, the German Democratic Republic and Byelorussian SSR, which seriously affected potatoes, sugar-beet and maize. Because of the cold spring and the rather hot and dry months of July and August in Bulgaria, Hungary and Romania, the harvests of maize, sugar-beet and sunflower were especially badly affected.

In Czechoslovakia, gross agricultural production increased by 6 per cent and recovered fully from the decline recorded in the preceding year. Similar trends were recorded in Hungary: growth of 2.6 per cent compensated a 1.1. per cent decline in 1979. In the German Democratic Republic, growth at 0.2 per cent was positive for the fourth consecutive year, the increase amounting cumulatively to more than 11 per cent compared with 1976. The Soviet Union experienced negative growth of 2 per cent. Negative growth was also recorded in Bulgaria (−4.9 per cent); in both Romania and the Ukrainian SSR (−5 per cent); and in Poland (−9.6 per cent)—where output fell to below its 1972 level. In the Byelorussian SSR production fell by 10 per cent in 1980 (table 3.2.1).

During 1976-1980 agriculture in the Soviet Union and most east European countries experienced two or three years of declining output growth rates out of the five (charts 3.2.1 and 3.2.3). But in spite of annual fluctuations in the production of basic crops, all countries recorded an increase in agricultural production over the period as a whole compared with 1971-1975; the most modest was recorded in Poland (see text table below).

Romania registered an annual average growth of output in 1976-1980 of 4.8 per cent, but has not reached the ambitious five-year plan target. Bulgaria, Czechoslovakia, the German Democratic Republic and Hungary, where growth ranged between 1.3-2.9 per cent annually, all experienced a moderate but relatively smooth growth of agricultural output.

TABLE 3.2.1

Gross agricultural output

Country and period	*Annual percentage change*			*Percentage share of total output*	
	Total	*Crop*	*Animal*	*Crop*	*Animal*
Bulgaria					
1976	4.1	5.7	2.0	57.5	42.5
1977	−4.6	−9.5	2.0	54.6	45.4
1978	4.3	4.5	4.0	54.7	45.3
1979	6.0	5.7	6.4	54.5	45.5
Plan 1980	3.7	..	..	..	..
1980	−4.9	−9.5	0.6	51.9	48.1
Plan 1981	4.7	..	..	..	..
Czechoslovakia					
1976	−2.4	−6.3	0.7	42.9	57.1
1977	9.1	15.6	4.2	45.4	54.6
1978	1.5	0.2	2.6	45.5	54.5
1979	−4.2	−9.2	0.1	43.1	56.9
Plan 1980	7.2	12.0	3.1	47.1	52.9
1980	6.0	8.8	3.9	44.2	55.8
Plan 1981	2.6	6.8	0.0	45.8	54.2
German Democratic Republic					
1976	−4.9	−12.1	−0.5	34.8	65.2
1977	6.8	19.9	−0.4	39.1	60.9
1978	1.4	0.0	2.5	38.8	61.2

TABLE 3.2.1 (*continued*)

Country and period	*Annual percentage change*			*Percentage share of total output*	
	Total	*Crop*	*Animal*	*Crop*	*Animal*
German Democratic Republic					
1979	2.0	4.0	1.0	39.6	60.4
Plan 1980	0.5[a]	..	..	..	..
1980	0.2	4.1	3.0	37.5	62.5
Plan 1981	0.8[a]	..	..	..	..
Hungary					
1976	−2.7	−4.7	−0.4	51.9	48.1
1977	10.3	12.0	8.4	52.7	47.3
1978	2.0	1.0	3.0	52.3	47.7
1979	−1.1	−3.2	1.2	51.1	48.9
Plan 1980	5.0-5.5	10.0-11.0	−0.3	54.6	45.4
1980	2.6	−2.8	8.3	48.4	51.6
Plan 1981	3.0	..	..	..	..
Poland					
1976	−1.1	5.0	−8.7	60.1	39.9
1977	1.4	−7.2	13.7	53.0	47.0
1978	4.1	5.4	2.6	54.3	45.7
1979	−1.5	−3.7	1.3	52.8	47.2
Plan 1980	5.8	..	..	..	..
1980	−9.6	−15.2	−3.3	49.9	50.1
Romania					
1976	17.3	22.0	11.2	59.0	41.0
1977	−0.9	−4.8	5.4	57.0	43.0
1978	3.4	0.9	6.4	55.7	44.3
1979	5.5	6.0	4.7	56.0	44.0
Plan 1980	4.7-6.0	..	..	..	..
1980	−5.0	−6.0	−3.8	55.4	44.6
Plan 1981	9.0[b]	..	..	..	..
Soviet Union					
1976	6.5	18.8	−2.9	48.0	52.0
1977	4.0	−1.8	9.4	45.3	54.7
1978	2.7	5.0	0.8	46.3	53.7
1979	−3.8	−6.8	−1.2	44.8	55.2
Plan 1980	8.8	..	..	..	..
1980	−2.0[c]	−2.2	−1.9	44.8	55.2
Plan 1981	11.9[c]	..	..	..	..
Byelorussian SSR					
1976	6.2	12.4	1.2	46.7	53.3
1977	−1.6	−12.1	7.5	41.7	58.3
1978	6.8	18.5	−1.5	46.3	53.7
1979	−5.8	−9.3	−2.8	44.6	55.4
Plan 1980	3.8	..	..	..	..
1980	−10.0	..	..	..	..
Plan 1981	19.1[c]	..	..	..	..
Ukrainian SSR					
1976	10.8	26.8	−1.9	50.8	49.2
1977	5.2	−1.3	11.9	47.7	52.3
1978	0.7	1.9	−0.4	48.2	51.8
1979	−6.8	−10.3	−3.5	46.4	53.6
Plan 1980	10.1	..	..	..	..
1980	−5.0	..	..	..	..
Plan 1981	16.5[c]	..	..	..	..

Sources: National statistics and CMEA yearbooks and plan fulfilment reports.

[a] Net output including food processing industry.

[b] Net output.

[c] Calculated on the basis of 1980 level reported.

CHART. 3.2.1

Agriculture: output and factor inputs
(*Indices, 1968-1972 = 100*)

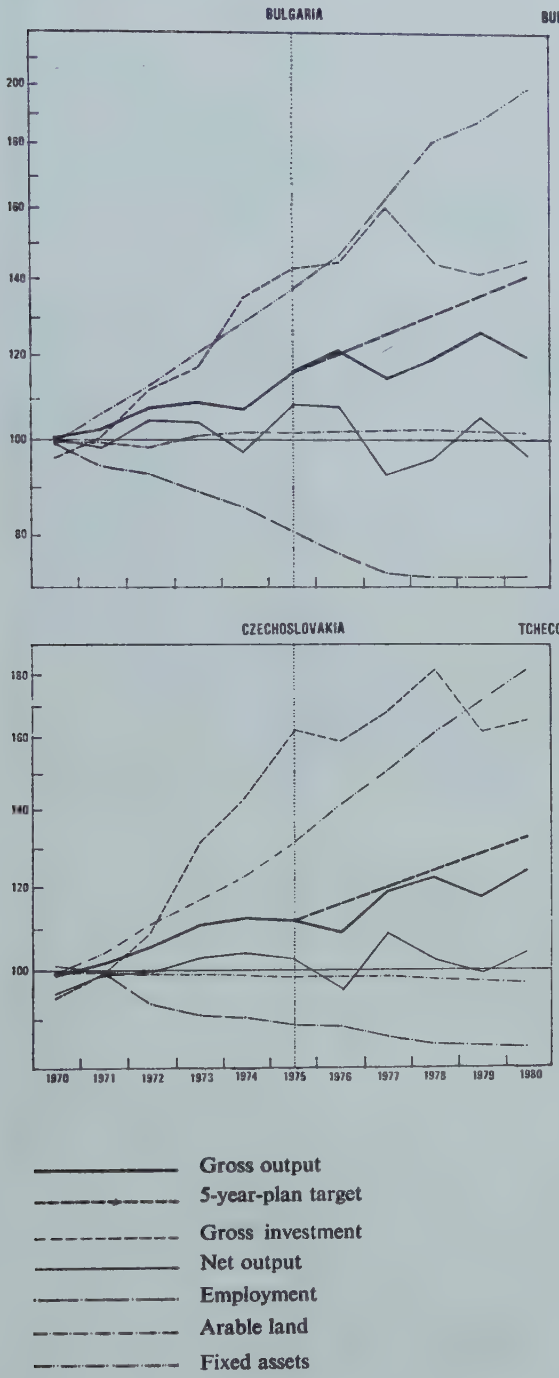


CHART. 3.2.2

Agriculture: efficiency indicators
(*Indices, 1968-1972 = 100*)

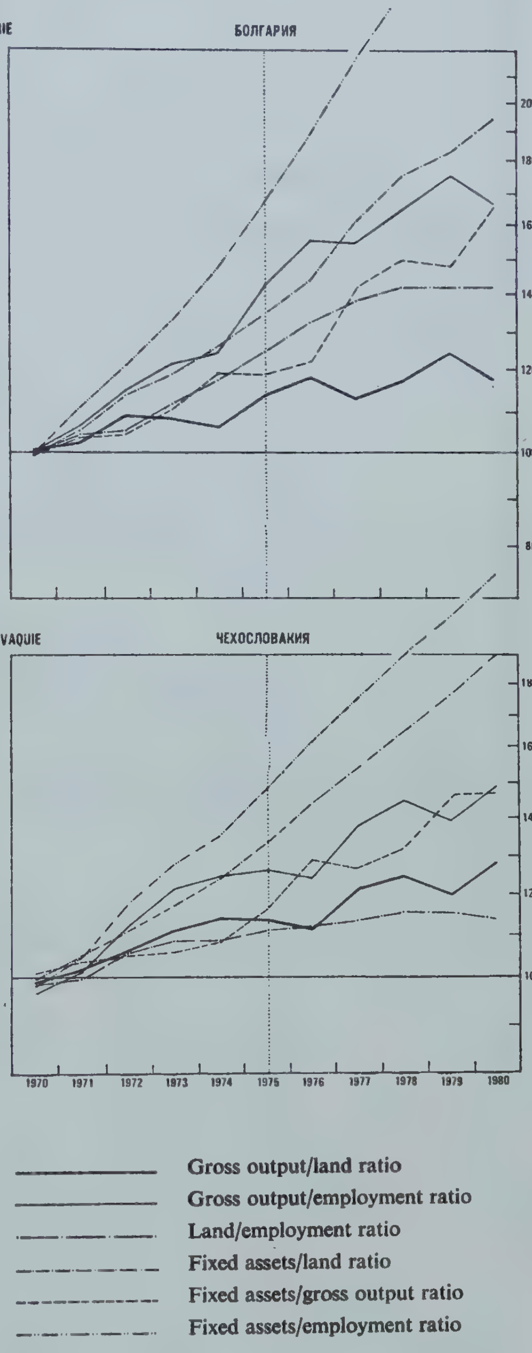


CHART. 3.2.1 (*continued*)

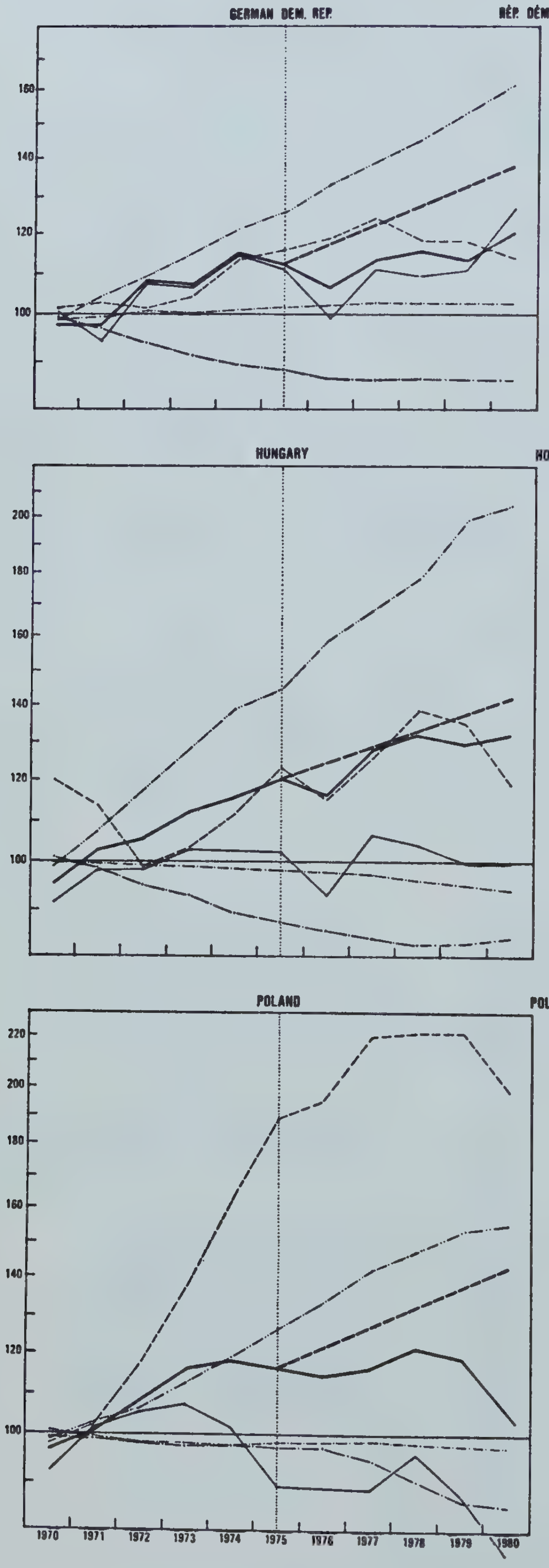


CHART. 3.2.2 (*continued*)

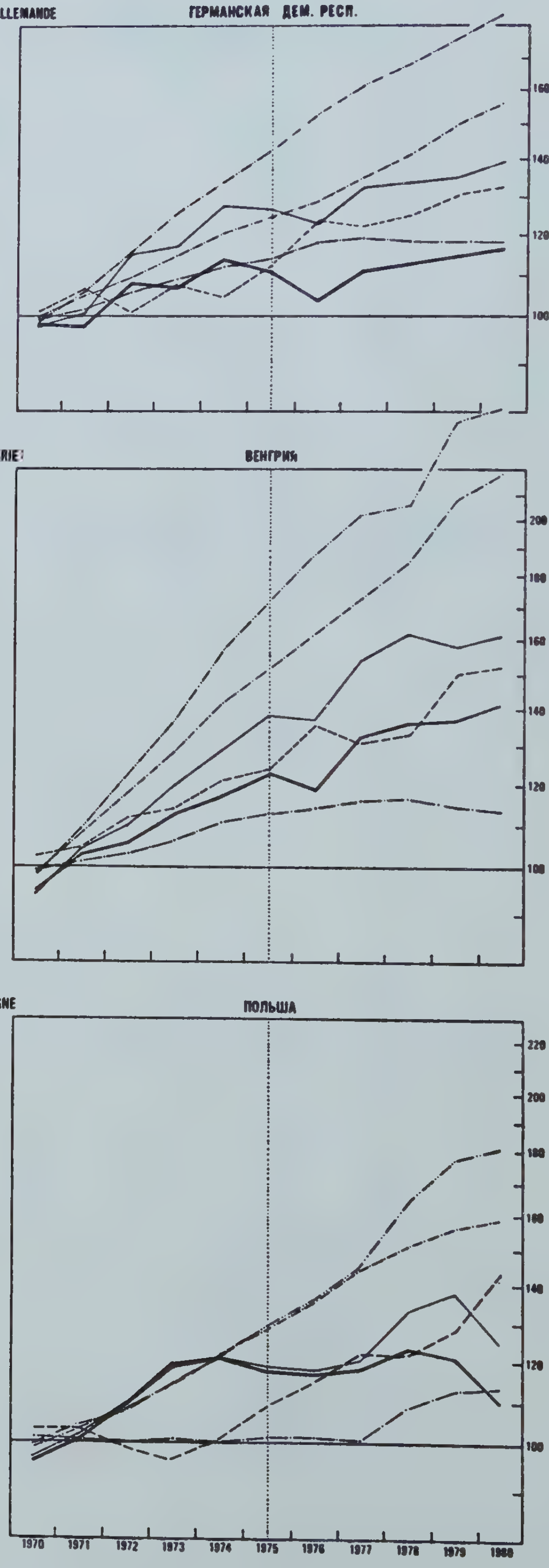


CHART. 3.2.1 (*concluded*)

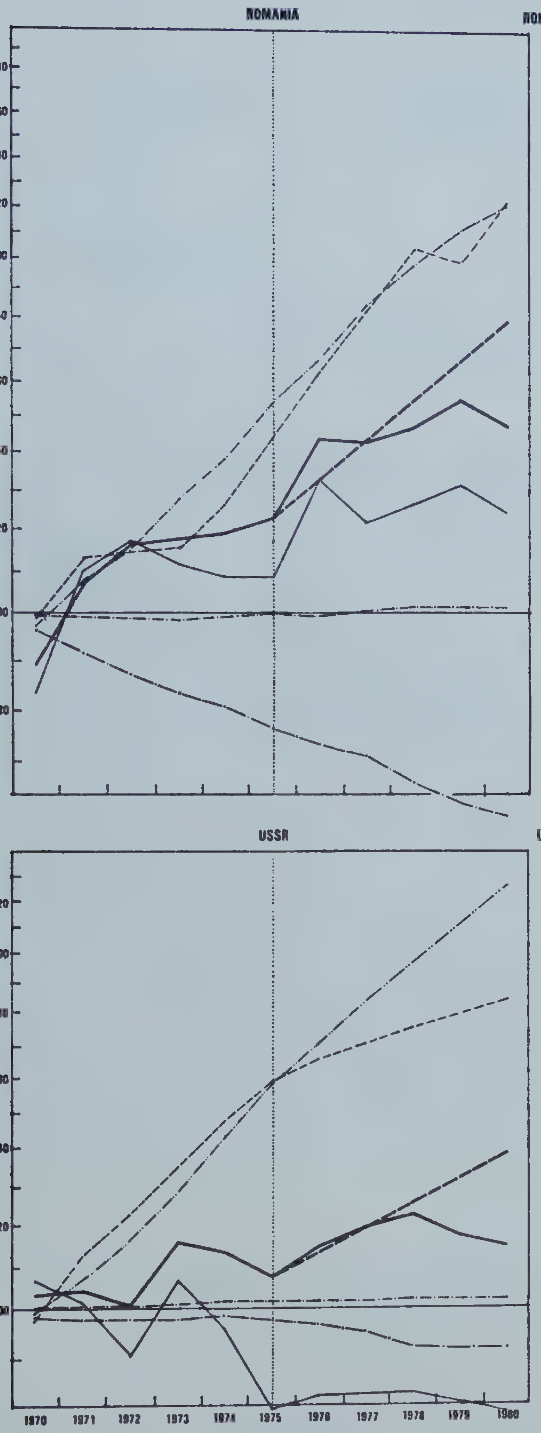
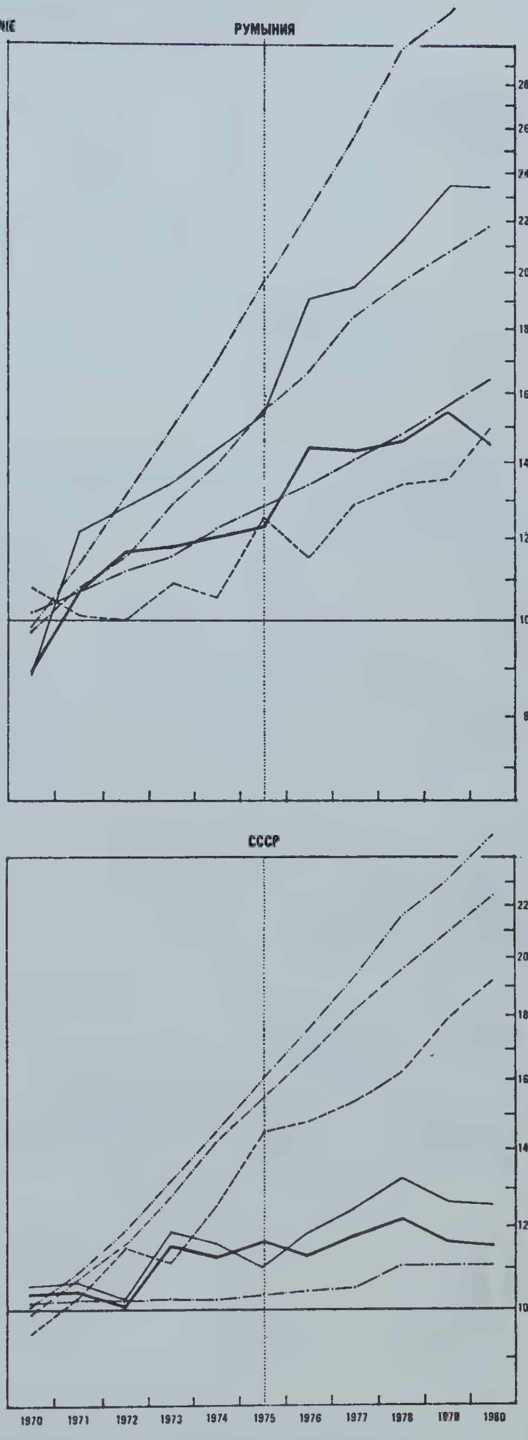


CHART. 3.2.2 (*concluded*)

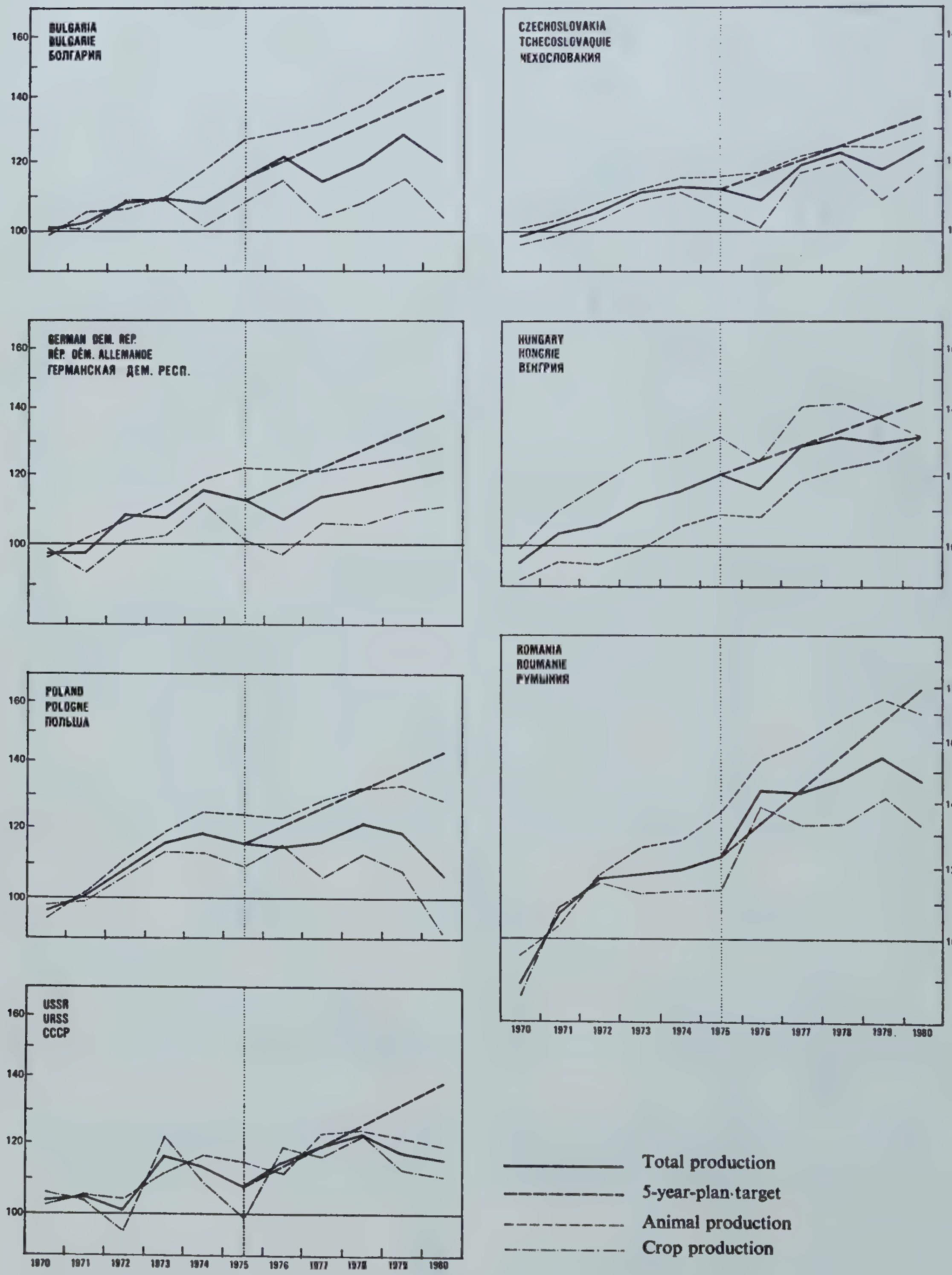


Source: As for table 3.2.1.

Chart. 3.2.3

Gross agricultural output: total production, crop and animal production

(Indices, 1968-1972 = 100)



Source: As for table 3.2.1.

Growth of agricultural output
(Annual average percentage change)

	1971-1975	1976-1980		1981-1985
		Plan	Actual	Plan
Bulgaria	2.2	3.7	2.1	3.7-4.1
Czechoslovakia	2.9	2.7	1.7	ca. 2.0
German Democratic Republic	2.1	3.0[a]	1.3	..
Hungary	3.4	3.2-3.4	2.9	2.3-2.8
Poland	3.1	3.0-3.5	0.6	..
Romania	4.6	5.1-7.6	4.8	4.5-5.0
Soviet Union	2.5	3.0	1.7	2.3-2.7
Byelorussian SSR	2.6	2.3	1.5	..
Ukrainian SSR	2.9	2.5	1.0	..

Source: As for table 3.2.1.

[a] Estimated on the basis of planned increases of 20 per cent in crop production and of 9 per cent in livestock output.

In the Soviet Union three unfavourable years during the period 1976-1980 resulted in shortfalls compared with plans. Annual average grain production exceeded 205 million tons—some 10-15 million tons short of the guideline target. On the other hand, excellent results were obtained in cotton growing, and livestock numbers increased. The annual average growth rate of total output was 1.7 per cent in comparison with the previous five-year period. The biggest difficulties were experienced in feed grain and fodder production: this held back the livestock branch and created difficulties in maintaining supplies to the population. Poland also recorded three years with negative growth rates, agricultural production declining in both 1979 and 1980. The drop was very large in crop production in the latter year, when its volume was lowest during the whole decade—6 percentage points below an already modest 1970 performance. Poland was the only country where gross agricultural output per capita decreased—by an annual average of 0.3 per cent during 1976-1980. In other countries of the region the annual average increases per capita ranged from 1 per cent in Czechoslovakia to 3.9 per cent in Romania.

A drop in crop output in 1980 adversely affected the *structure of agricultural output* in most countries. Imbalances between crop and animal production increased and only Czechoslovakia succeeded in improving the relationship between the two branches of output (see text table below and also chart 3.2.3).

The problem of balancing agricultural production, and in particular of increasing the output of fodder, became increasingly important as the growth of animal production increased in line with demand for products of animal origin. Some countries such as Bulgaria, Poland and Romania attempted to increase the share of animal production (at present below 50 per cent) in total agricultural output. Attempts were therefore made to develop this branch faster than crop production. But the actual movement of the relative share of the two branches in these countries were highly dependent on fluctuations in crop output. The same was true for Czechoslovakia, the German Democratic Republic and the Soviet Union, where livestock farming accounts for a bigger proportion of output but relies on imported grains. This has placed strains on their external trade balances. The only country where crop production developed faster than over-all output was Hungary; the annual average output of grain per capita during the 1976-1980 period stood at the very high level of 1.200 kg and annual per capita meat output reached 190 kg (live weight).

In all countries priority in 1980, as under the 1976-1980 five-year plan, was given to the intensification of crop, and especially grain, production to ensure fodder supplies and reduce grain imports. In fact, the gap between fodder supply and demand has widened in recent years. Good crop production has enabled livestock numbers to be raised more into line with requirements in some years.

Crop (A) and livestock (B) production indices
(1968-1972 = 100)

	1971-1975		1976-1980		1979		1980	
	A	B	A	B	A	B	A	B
Bulgaria	105.6	113.4	109.3	138.2	114.9	145.9	104.0	146.7
Czechoslovakia	105.9	111.0	113.0	123.1	108.9	124.4	118.5	129.3
German Democratic Republic	103.7	112.0	102.9	123.3	109.7	124.5	105.2	127.9
Hungary	122.0	101.4	135.4	121.4	137.0	123.5	133.1	133.7
Poland	108.4	115.9	106.8	126.7	108.3	133.0	91.6	128.6
Romania	113.0	122.7	136.1	166.2	141.9	177.8	133.4	171.1
Soviet Union	106.3	110.7	116.3	119.5	113.7	121.5	111.3	119.3

Sources: As for table 3.2.1.

But poor harvests thereafter have faced the farm sector with a choice between slaughtering animals—and losing several years in rebuilding the herds—or importing grains and thus maintaining livestock numbers even in difficult years. The latter option has been most widely adopted, negative rates in livestock production in individual years having been held in general below 1 per cent. Policies in Czechoslovakia, the German Democratic Republic, Hungary and Poland is henceforth to maintain stable output at current levels.

Regional specialization and structural change were promoted in all countries. In the Soviet Union, the Russian Federation was the biggest grain producer with 57 per cent of the total production in 1979; another 22 per cent was produced in the Ukraine, 13 per cent in the Central Asian Republics, and 12 per cent in Kazakhstan. Some 61 per cent of sugar-beet production is concentrated in the Ukraine, while the Russian Federation produces 30 per cent and Moldavia 4 per cent. Some 49 per cent of potato production is contributed by the Russian Federation, 26 per cent by the Ukraine, 16 per cent by Byelorussia, and 6 per cent by the Baltic Republics. Production of vegetables and fruit is distributed throughout all Union Republics, the Central Asian, Transcaucasian Republics and Moldavia accounting for a relatively large share. The Central Asian Republics also produce 94 per cent of cotton. The regional distribution of farm animals has been relatively stable since 1965. The Russian Federation increased its share of poultry while the Ukraine increased both pigs and poultry. The Central Asian Republics and Kazakhstan increased pigs, sheep and poultry, and the Transcaucasian Republics reduced their cattle numbers. The components of livestock production have followed the same trends. Some intercountry shifts in the geographical structure of agricultural production are envisaged within the region in connexion with the implementation of the long-term special programme of co-operation between CMEA member countries in the agriculture and food industries.

There were also changes with regard to inter-farm specialization and the concentration of production in industrial-type units, which stimulated inter-farm (horizontal) co-operation but also generated problems connected with changes in organizational structures. During the last five years about 10,000 inter-farm enterprises were created in the Soviet Union. Industrial technologies in animal breeding will stimulate further changes in the regional structure of livestock production and also in fodder crop output.

The industrialization of agriculture also caused another kind of structural change. Agriculture has become more dependent on other branches of the national economy, and farm policy is being increasingly formulated within the context of the national *agro-industrial complex*. Technological, economic and organizational relationships between branches supplying agriculture with goods and services or processing its production were intensified progressively, but flows from agriculture to the other branches of the national agro-industrial complexes were uneven and inter-branch structures need further improvement (see text table below).

As the data indicate, the share of agriculture in both total production and employment in the national agro-industrial complexes has decreased considerably during the last decade but still remains relatively high. The contribution of other branches in creating final products on the basis of agricultural raw materials has been increasing, but it seems that in most countries both the industries which supply agriculture with machinery, chemicals and services and those processing its products have room to develop at a faster pace.

Plans for 1981 have taken into account the low level of agricultural output in 1980, and the existing reserves for better utilization of basic inputs. Since the targets are based on the expectation of normal climatic conditions, in most countries they appear rather ambitious. The *Bulgarian* 1981-1982 plan has provided for a 26 per cent increase in grain production. Areas under grain will be stepped up to supplement expected yield increases. During the 1981-1985 period agricultural output is planned to grow by 20-22 per cent. After a very good performance in 1980, *Czechoslovakia* plans to increase its crop production in 1981 by 6.8 per cent, with a zero increase in animal production. For 1981-1985, production is expected to rise by 2 per cent annually, of which crop output by 2.8 per cent and livestock production by 1.3 per cent. This would bring about further improvements in agricultural self-sufficiency. The plan also stresses the importance of increasing fodder output

Structure of the agro-industrial complexes in the second half of the 1970s

(*Percentage share of components in total output and employment of the complexes*)

A = Supplying industries
B = Agriculture
C = Processing industries and services

	Gross production			*Employment*		
	A	*B*	*C*	*A*	*B*	*C*
Bulgaria	6	43 (63)	51	4	78 (86)	18
Czechoslovakia	16	32 (40)	52	11	66 (69)	23
German Democratic Republic	15	37 (39)	48	14	47 (58)	39
Hungary	20	41 (53)	39	9	70 (82)	21
Poland	16	43 (54)	52	4	81 (88)	15
Romania	..	.. (70)	..	..	.. (92)	..
Soviet Union	16	41 (58)	43	11	66 (82)	23

Sources: *Voprosi Ekonomiki*, No. 7, 1980, p. 104, and No. 2, 1975, p. 84.
Note: Figures in brackets are for the second half of the 1960s.

and economizing its use. The *German Democratic Republic* places particular emphasis in the 1981 plan on achieving further increases in efficiency, and on accelerating the growth of crop and especially fodder production; the objective here is to increase domestic fodder output and thus reduce imports. *Hungary* plans to increase agricultural production in 1981 by 3 per cent. Higher growth is anticipated for crop farming relative to livestock production. Private and part-time farms of non-agricultural workers will continue to provide for an important share of consumer demand, but the large agricultural complexes are expected to be responsible for any increments in production. During the next five years agricultural output will grow by 15-16 per cent in comparison with the last quinquennium. *Romania* plans to increase its net agricultural production in 1981 by 9 per cent, relying on the improvement and better utilization of land, much higher machinery and fertilizer inputs and new technologies, as well as rapid increases in the herds. The published draft plans[125] for the 1981-1985 period envisage an average annual growth in agricultural production of 4.5-5.0 per cent in comparison with the previous five-year plan period. This is expected to result in a 45 per cent rise in grain production. Output of vegetables will climb by more than 20 per cent. The share of animal husbandry in total agricultural production is expected to attain 45-50 per cent.

The 1981 plan targets for agricultural output in the Soviet Union, Byelorussian SSR and Ukrainian SSR, presented in table 3.2.1, seem high in relation to past performance (they were calculated by referring the planned volume of agricultural output to the 1980 level). The Soviet Union intends to develop its national agro-industrial complex in the next 1981-1985 five-year plan period with a view to providing the country with reliable supplies of food and agricultural raw materials. The main objective for agriculture is to achieve a dynamic increase in the effectiveness of all branches. A rise in output of 12-14 per cent over the annual averages achieved in 1976-1980 is planned, and labour productivity in socialized farming is expected to rise by 22-24 per cent. The plan emphasizes a rise in land fertility and yields and further growth in grain production to an annual average of 238-243 million tons, together with increases in fodder production. The number of animals and their productivity is to be increased in order to reach a meat production level of 17.0-17.5 million tons, together with milk output of 97-98 million tons. Allocations of appropriate supplies of material inputs, labour and financial resources are expressly stipulated by the plan.

(ii) Trends in agricultural inputs

Since agricultural output declined in most countries in 1980, costs per unit of output increased compared with the previous year: capital intensity rose and labour and land productivity fell or stagnated (chart 3.2.2). Similar unfavourable trends were already apparent in 1979.

During the 1976-1980 period the volume and value of material inputs increased in all countries, but labour inputs and the area under cultivation declined progressively. Prices of both domestic and imported inputs have advanced considerably. Salaries and social benefits for agricultural workers and farmers have also climbed continuously during the period under review. Higher production costs have put pressure on producers as the profitability of agricultural output declined. This became especially noticeable in the two worst recent years when production of many crops in most countries dropped. This particularly affected animal husbandry, for which grain imports were necessary. The economic measures and comprehensive development programmes introduced were designed to increase efficiency and hence stimulate savings on agricultural inputs of all kinds.

The *labour force* continued to decline in most countries, but at declining rates (table 3.2.2). The share of agricultural employment in the total economically active population for the whole region in 1979 was 19.8 per cent, ranging from 31 per cent in Romania to below 10 per cent in the German Democratic Republic. In some countries there are still considerable reserves for transferring labour to non-agricultural sectors. Further significant reserves are available in Romania, Poland and Bulgaria where the share of agricultural employment is the highest. In Hungary and in the German Democratic Republic a slight increase in agricultural employment since 1978 was registered, but in general there has been a gradual decline in the number of farm workers per hectare of agricultural land.

Data in the text table indicate that during the past decade agricultural employment decreased more rapidly

Changes in agricultural employment

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
			A. Indices in 1979				
(1975 = 100)	89.0	94.8	97.9	94.5	88.3	83.0	94.0
(1970 = 100)	72.3	82.8	87.0	82.5	84.8	65.8	92.7
			B. Annual average percentage change				
1971-1975	−4.1	−2.7	−2.3	−2.8	−0.4	−4.5	−0.2
1976-1979	−2.9	−1.3	−0.5	−1.4	−3.0	−4.6	−1.5
1971-1979	−3.2	−1.9	−1.5	−2.2	−1.8	−4.5	−0.8

Source: As for table 3.2.1.

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[125] Draft guidelines of the National Council of Agriculture for the Second Management Congress of Socialist Farm Units and the Entire Peasantry, *Scinteia*, 27 December 1980.

TABLE 3.2.2

Employment in agriculture

Period	*Economically active population in agriculture*		*Percentage of total economically active population*	*Labour force per 100 hectares of agricultural land*	*Economically active population in agriculture*		*Percentage of total economically active population*	*Labour force per 100 hectares of agricultural land*
	Total (thousands)	*Annual percentage change*			*Total (thousands)*	*Annual percentage change*		
	Bulgaria				*Romania*			
1976	1 130	−4.9	26.2	18.2	3 670	−5.0	35.8	24.5
1977	1 082	−4.2	25.3	17.4	3 559	−3.0	34.6	23.7
1978	1 057	−2.3	24.6	17.0	3 375	−5.2	32.8	22.5
1979	1 056	−0.1	24.4	17.0	3 203	−5.1	31.0	21.4
	Czechoslovakia				*Soviet Union*			
1976	1 029	−0.4	14.1	14.7	26 600	0.0	22.8	4.8
1977	1 006	−3.2	13.7	14.4	26 500	−0.4	21.9	4.8
1978	987	−1.9	13.3	14.2	26 400	−0.4	20.9	4.8
1979	980	−0.3	13.1	14.2	26 100	−0.8	20.6	4.7
1980	..	..	..	..	26 100	−0.4	20.4	4.7
	German Democratic Republic				*Byelorussian SSR*			
1976	789	−2.3	9.8	12.5	1 314	−0.2	27.0	13.4
1977	784	−0.6	9.7	12.5	1 286	−2.1	26.1	13.1
1978	788	0.4	9.7	12.5	1 262	−1.9	25.3	12.9
1979	791	0.4	9.7	12.6	1 243	−1.6	25.2	12.8
	Hungary				*Ukrainian SSR*			
1976	1 016	−2.0	19.9	15.0	6 341	0.1	25.4	15.0
1977	980	−3.5	19.3	15.0	6 213	−2.0	24.6	14.7
1978	977	−0.3	19.3	14.5	6 123	−1.4	24.1	14.5
1979	979	0.2	19.3	14.7	5 970	−2.5	23.5	14.0
1980	989	1.0	19.5	14.9	..	..	..	..
	Poland							
1976	4 363	−0.7	26.4	22.8	..	..	..	..
1977	4 306	−1.3	25.9	22.5	..	..	..	..
1978	4 036	−6.3	24.3	21.2	..	..	..	..
1979	3 883	−3.8	23.5	20.4	..	..	..	..

Sources: As for table 3.2.1.

in Romania and Bulgaria than in other countries. On the other hand in Bulgaria, Czechoslovakia, the German Democratic Republic and Hungary, since 1975 the annual decrease in agricultural employment fell significantly. In the other three countries the outflow of labour from agriculture was more rapid after 1975 than in the previous five-year period.

The sex and age structure of agricultural employment continued to deteriorate but the share of skilled employees increased. Special attention is paid to increasing the qualifications of the agricultural labour force in most of the countries to correspond with the introduction of new industrial technologies. During the period since 1970 the number of skilled mechanics in Soviet agriculture increased to 4.5 million—slightly more than 17 per cent of total agricultural employment. Managers of state and co-operative farms and of joint farm enterprises in 1979 numbered 1.2 million (4.5 per cent of the total employed); of these, 72 per cent were graduates of universities or specialized secondary institutions. On co-operative farms in Czechoslovakia an increase in the share of qualified personnel from 40 per cent in 1980 to 50 per cent in 1985 is targeted. In Hungary, 37 per cent of manual workers on state farms and 30 per cent of those on co-operative farms are qualified as skilled workers, while of supervisory staff in the agricultural labour force, 58 per cent have a higher degree and 30 per cent other graduate qualifications. In 1979 the share of skilled agricultural labour in the total farm work force was 88 per cent in the German Democratic Republic.

In 1980, *labour productivity* increased in Czechoslovakia by 6.5 per cent, in Hungary by −1.7 per cent and the German Democratic Republic by 20 per cent. In Bulgaria, it decreased by 4.8 per cent, in Poland by about 9.1 per cent, in Romania by about 0.2 per cent and in the Soviet Union by 0.3 per cent. However, in all countries agricultural labour productivity rose in 1976-1980 compared with the previous five-year period. The improvement ranged between an annual average of 2.3 per cent in Poland and a 9.4 per cent annual average in Romania. Data indicate that in some of the countries such as Czechoslovakia, the German Democratic Republic and Hungary, movements in agricultural output resulted entirely from higher labour productivity. In Bulgaria, and especially in Romania, the rise in output also was accompanied by a marked decline in employment. The

TABLE 3.2.3

Distribution of agricultural land

(*Thousand hectares*)

Country and period	Agricultural land	Arable land	Area under grain	of which: Wheat	Land reclamation	
					Irrigated land	Drained land
Bulgaria						
1976	6 198	3 715	2 334	918	1 147	..
1977	6 206	3 722	2 305	910	1 148	..
1978	6 215	3 737	2 207	934	1 168	..
1979	6 206	3 734	2 255	958	1 185	225
1980	6 210	3 736	2 210	968	..	245
Czechoslovakia					[a]	[a]
1976	6 990	4 898	2 830	1 278	13.8	53.4
1977	6 976	4 898	2 829	1 287	17.0	55.4
1978	6 952	4 883	2 841	1 274	16.0	56.0
1979	6 924	4 849	2 789	1 111	19.4	61.2
1980	..	..	..	1 197	16.0	57.0
German Democratic Republic						
1976	6 923	4 752	2 672	768	720	1 236
1977	6 291	4 771	2 575	732	805	1 325
1978	6 282	4 776	2 594	686	886	1 397
1979	6 280	4 767	2 539	712	954	1 463
1980	..	..	..	760	1 002	1 523
Hungary						
1976	6 757	5 106	3 160	1 325	471	..
1977	6 730	5 068	3 071	1 311	485	..
1978	6 698	5 044	3 075	1 324	486	..
1979	6 651	5 035	3 011	1 135	480	..
1980	6 627	5 165	2 905	1 277	..	..
Poland						
1976	19 151	14 516	7 968	1 832	500	3 540
1977	19 111	14 549	8 181	1 834	508	3 625
1978	19 059	14 295	8 035	1 852	511	3 711
1979	18 991	14 450	8 044	1 549	517	3 801
1980	..	..	..	1 769	..	..
Romania				[b]		
1976	14 955	9 754	6 441	2 429	1 729	..
1977	14 960	9 774	6 399	2 309	1 854	..
1978	14 964	9 794	6 410	2 324	2 065	..
1979	14 967	9 807	6 418	2 140	2 253	2 512
1980	..	..	..	2 135	2 300	..
Soviet Union						
1976	551 058	225 696	127 760	59 467	15 300	14 413
1977	552 558	225 999	130 344	62 030	16 000	15 143
1978	552 653	226 174	128 465	62 898	16 600	15 731
1979	552 847	226 319	126 351	57 682	17 000	16 333
1980	553 007	226 440	130 022	61 682	17 700	16 983
Byelorussian SSR						
1976	9 794	6 141	2 766	151	170	2 381
1977	9 782	6 170	2 856	153	156	2 467
1978	9 759	6 182	2 864	170	175	2 553
1979	9 720	6 205	3 044	165	193	2 650
1980	..	..	..	..	206	2 755
Ukrainian SSR						
1976	42 173	34 269	15 942	4 628	1 650	2 146
1977	42 133	34 263	17 354	8 637	1 767	2 251
1978	42 100	34 242	16 692	8 264	1 829	2 342
1979	42 585	34 357	16 090	6 691	1 921	2 445
1980	..	..	..	..	2 007	2 584

Sources: As for table 3.2.1.

[a] Annual increase in area irrigated or drained.

[b] Including area under rye.

annual average increase in labour productivity for that period was 6.1 per cent in Bulgaria, compared with the 9.4 per cent already noted for Romania.

The total area of *agricultural land* in 1980 apparently remained unchanged. There was, however, a decline in cultivated land per capita because of population increases and a further loss of arable land to non-agricultural purposes. The share of arable land however remained virtually stable, but arable land under grain and fodder crops expanded in most countries (table 3.2.3).

All governments have recognized the importance of land conservation and established or improved existing land use legislation in order to stop the transfer of arable land to non-agricultural uses. In Bulgaria farms pay double tax on untilled land. Under a newly adopted land conservation act in Hungary, large farms which leave land untilled through their own fault are obliged to pay an indemnity to the state proportional to the quality of the soil concerned. In the Byelorussian SSR a general plan for land use is being implemented, which co-ordinates the use of land for agricultural and non-agricultural purposes and aims to increase agricultural land by 475,000 hectares.

During the 1976-1980 period, the east European countries and the Soviet Union laid down improvement targets for about 10 million hectares. During the period under review, this large scale programme was fulfilled despite some difficulties. In 1979, improved land in the whole region totalled about 53 million hectares, of which 25.5 million hectares—mostly in the Soviet Union—were under irrigation and 27.5 million hectares drained. Measures have also been taken to apply on a large scale modern technologies based on sprinkler machinery for irrigation and on closed-system techniques for drainage. The CMEA Agricultural Commission co-operated in the development and application of the new technologies.

In Bulgaria and the Soviet Union, existing irrigation systems based predominantly on gravitational watering techniques have been intensively modernized. In new projects, only sprinkler machinery and closed system drainage have been applied. In Poland, sprinkler technology was used on 25 per cent of total irrigated land, in the German Democratic Republic 45, Hungary 75, Romania 86 and in Czechoslovakia 98 per cent.

Land improvement programmes considerably increased yields and contributed to output on a large scale in all countries. Bulgaria harvests more than 40 per cent of its crop output from irrigated land, which represents about 20 per cent of total agricultural land. Yields from winter crops on irrigated land are 30-50 per cent higher than those on non-irrigated land. An irrigated hectare in Czechoslovakia yields 5-15 quintals more maize and 90-100 quintals more sugar beet. In the German Democratic Republic, in a normal agricultural year, irrigated land yields 25 per cent more output per hectare and, in drought years, 50 per cent more. Yields from irrigated land in Hungary are usually 30-40 per cent higher for basic crops and 50-100 per cent higher for fruit and grapes. On improved land of all kinds, which in 1979 accounted for 35 per cent of total agricultural land, Poland produced 42 per cent of its crop output. Irrigation has helped Romanian farmers to increase maize production by 32.7 quintals and sunflower by 9.8 quintals per hectare. Farmers in the Soviet Union are now producing 28 per cent of total crop output on the 8 per cent share of the sown area (including land under perennial crops) which is irrigated.

Large scale land improvement programmes have been in progress for several years in the Soviet Union. They are mainly located in the Non-Black Earth Zone in the Russian Federation, the Poles'ye lowlands in the Byelorussian and the Ukrainian SSRs and also in the Central Asian Republics, where projects for transferring water from the Siberian rivers have been started. In the next five years, the Soviet Union plans to finance, from state resources, a programme for the construction of irrigation systems on 3.4-3.6 million hectares, and for land drainage on 3.7-3.9 million hectares; water will be brought to 26-28 million hectares of pasture in desert, semi-desert and mountainous areas.

It has been estimated that in the CMEA countries, 84 per cent of arable land is suitable for improvement, 51 per cent of which for irrigation and 33 per cent for drainage.[126] In 1975, 19 per cent of the total land suitable for improvement was irrigated or drained, this proportion rising to 24 per cent in 1979. Plans are to step up this figure to 34 per cent by 1985.

Programmes linked with soil protection schemes to modify traditional systems of crop farming in order to increase land productivity are also under review. Such systems were applied on 35 million hectares of virgin land in the Soviet Union, and yields have been higher and more stable than average. Further enlargement of the area is limited by shortages of machinery, fertilizers and suitable crop varieties.[127] In Bulgaria large-scale experiments with non-traditional minimum cultivation techniques to prevent erosion, retain moisture in the soil and reduce the cost of production have been started.[128]

In 1980 agricultural *investments* in Bulgaria rose by 2.9 per cent and in Romania by 6.6. per cent in comparison with 1979, whereas in Hungary they decreased by 20 per cent. The Soviet Union and the Byelorussian SSR stepped up investments by 2.6 and 3.1 per cent respectively (see table 3.2.4). Data for 1980 are not available for other countries of the region.

Changes in investments, 1976-1980

(*Indices, 1971-1975 = 100*)

	Total	*Machinery and equipment*
Bulgaria	121.1	121.0
Czechoslovakia[a]	130.3	128.6
German Democratic Republic[a]	111.2	106.5
Hungary	115.4	..
Poland[a]	151.6	..
Romania	157.3	..
Soviet Union	129.3	152.8

Source: As for table 3.2.1.

[a] Data for 1976-1979.

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[126] See *Mezhdunarodnyi sel'sko-khoziaistvenyi Zhurnal*, 1980, No. 4, pp. 89-94.

[127] A. Baraev, "An important reserve", *Pravda*, 19 August 1980.

[128] I. Slavov, "The new non-traditional soil treatments with high efficiency", *Ikonomicheski Zhivot*, 1980, Nos. 44 and 45 (in Bulgarian).

Table 3.2.4

Investment and fixed assets in agriculture

Country and period	*Investment*				*Fixed assets*	
	Total (in millions of national currency units; at constant prices)	*Annual percentage change*	*Percentage of* *Total investment*	*Percentage of* *Investment in material sphere*	*Total (in millions of national currency units; at constant prices)*	*Percentage of total fixed assets in the material sphere*
Bulgaria						
1976	788	0.9	14.1	19.8	6 203	18.4
1977	873	10.8	14.2	18.9	6 924	18.9
1978	787	−9.8	12.7	16.9	7 600	19.1
1979	778	−1.2	12.9	16.7	7 949	16.9
Czechoslovakia						
1976	14 420	−1.1	10.9	14.3	169 222	14.8
1977	15 322	6.3	11.0	15.0	180 362	14.9
1978	16 295	6.4	11.2	15.3	192 105	15.0
1979	15 210	−6.7	10.1	13.7	199 203	14.6
German Democratic Republic						
1976	5 089	2.2	11.3	14.0	50 256	12.9
1977	5 301	4.2	11.1	13.9	52 670	12.8
1978	5 150	−2.8	10.5	12.9	55 387	12.8
1979	5 068	−1.6	10.1	12.8	58 442	12.8
Hungary						
1976	21 087	−6.7	13.9	17.4	270 956	19.0
1977	23 743	9.7	13.1	16.2	286 400	18.9
1978	26 893	13.3	13.6	16.8	302 800	18.8
1979	26 380	−1.9	13.0	16.5	320 600	18.6
1980	21 100	−20.0	12.0	15.0	349 362	19.0
Poland						
1976	92 484	2.1	14.8	18.8	1 088 000	25.6
1977	105 642	16.6	16.2	21.4	1 168 000	25.0
1978	105 868	0.2	15.9	21.5	1 251 000	24.7
1979	105 894	0.0	17.1	23.0	1 336 000	24.5
Romania						
1976	21 868	12.5	14.4	17.7	148 401	12.0
1977	24 505	12.0	14.5	18.0	164 335	12.0
1978	27 302	11.4	13.9	17.0	176 331	15.2
1979	26 833	−1.7	13.1	15.9	187 404	15.4
1980	28 600	6.6	13.6	16.3	..	..
Plan 1981	31 300	9.4	14.2	16.6	..	..
Soviet Union			[a]			
1976	32 100	4.2	27.2	36.8	180 000	20.7
1977	33 300	3.7	27.2	36.9	194 000	20.8
1978	34 600	3.9	26.7	36.0	209 000	20.8
1979	35 100	1.4	26.9	36.9	223 000	20.7
1980	36 000	2.6	27.0	..	..	..
Plan 1981	37 300	3.6	26.6	..	..	..
Byelorussian SSR			[a]			
1976	1 363	0.5	34.9	..	6 793	19.0
1977	1 422	4.3	34.1	..	7 409	19.2
1978	1 465	3.0	33.4	..	8 108	19.4
1979	1 494	2.0	35.2	..	..	..
1980	1 540	3.1	36.7	..	..	..
Plan 1981	1 537	−0.2	..	..	..	..
Ukrainian SSR			[a]			
1976	4 905	0.6	27.6	..	35 000	23.2
1977	5 013	2.2	27.3	..	37 000	22.8
1978	5 238	4.5	26.7	..	40 000	23.0
1979	5 130	−2.1	26.9	..	43 000	23.5
1980	5 200	1.4	27.2	..	..	..
Plan 1981	5 000	−3.8	26.0	..	..	..

Sources: As for table 3.2.1.

[a] Including investments in supplying and processing industries.

Changes in agricultural fixed assets
(Annual percentage change)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Total							
1971-1975	6.6	5.8	5.0	8.5	4.9	9.5	9.5
1976-1979	8.2	7.0	5.1	8.2	4.9	8.1	7.8
Machinery and equipment only							
1971-1975	5.2	7.1	5.3	15.4	8.9	..	..
1976-1979	6.3	8.3	..	10.5	18.2	..	..

Sources: As for table 3.2.1.

Since 1975 all countries have considerably increased their investments in agriculture, particularly Poland and Romania. But the share of agriculture in investments of the whole economy (and also in the material sphere) in most countries has tended to decrease except in Poland, and also in the Soviet Union where the share of agriculture, together with related branches (notably the agricultural machinery and agro-chemical branches) in total investment remained stable and amounted to about 27 per cent. In Czechoslovakia and the German Democratic Republic investment in machinery and equipment lagged behind the growth of total agricultural investments, but it increased at the same rate in Bulgaria. In the Soviet Union investments in machinery and equipment expanded faster than total agricultural investment. Judging from annual percentage changes of machinery and equipment in total fixed assets, changes in the investment structure similar to those in the Soviet Union have taken place in Hungary and Poland (see text table on page 102).

During the 1976-1979 period *fixed assets* increased at a more rapid pace than the previous five-year period in all countries but Poland. The share of agriculture in total fixed assets in the material sphere has increased in Romania, decreased in Bulgaria and was stable, with very slight fluctuations, in the other countries (see table 3.2.4). In the period under review Bulgaria, Czechoslovakia and especially Poland accelerated the growth of machinery and equipment in comparison with the previous five-year period. Czechoslovakia, Hungary and Poland continued to give priority to machinery and equipment in agricultural fixed assets. This was particularly so in Poland. The share of machinery and equipment in Bulgarian agricultural fixed assets lagged behind the total (see text table above).

In all countries the capital intensity per hectare of land and per worker increased considerably (see text table below). However it increased more rapidly than land and labour productivity. This is related to a slowdown in the long-term growth of the efficiency of fixed assets in agriculture (chart 3.2.2). In the Soviet Union the gross agricultural output-fixed assets ratio, which was 0.78 during the period 1966-1970, declined to 0.58 in 1971-1975 and, according to preliminary estimations, to 0.51 in 1976-1980. This trend is expected to continue. The slowdown in capital productivity was partly due to deterioration in the fixed assets structure: optimal equipment combinations are not yet widespread, and expenditures on building activity are still considered too high in relation to those on machinery. In addition, construction costs and machinery and equipment prices have risen, while output in crop farming remained short of the planned level.[129]

Data for deliveries of *agricultural machinery* in 1980 are available only for the Soviet Union, Byelorussian and Ukrainian SSR (table 3.2.5). The number of tractors (in physical units) continued to increase in the German

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[129] R. Kravchenko, "For a better use of agricultural fixed assets", *Planovoe Khoziaistvo*, 1980, No. 11 (in Russian).

Changes in capital intensity
(Indices, 1968-1972 = 100)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
			Fixed assets per hectare of arable land				
1975	135	134	125	151	129	154	156
1979	184	178	150	210	161	209	209
			Fixed assets per employee				
1975	167	149	142	172	130	197	161
1979	260	206	178	242	182	324	231

Sources: As for table 3.2.1.

TABLE 3.2.5

Stocks and deliveries of agricultural machinery

(*Thousand machines*)

	Stocks of tractors				*Deliveries*	
Country and period	*Physical units*	*Motor h.p. (in million h.p.)*	*Agricultural land, in hectares per tractor (physical units)*	*Motor h.p. per 100 hectares of arable land*	*Tractors*	*Grain combines*
Bulgaria						
1976	65.5	3.5	95	95	6.2	1.1
1977	65.0	3.7	96	99	6.7	1.5
1978	64.4	3.8	97	102	3.7	1.0
1979	63.4	3.9	98	105	3.6	0.8
Czechoslovakia						
1976	141.1	7.9	49	161	6.1	2.1
1977	140.0	8.1	50	165	7.1	2.1
1978	140.0	8.4	50	172	8.9	1.2
1979	138.0	8.6	50	177	7.5	1.3
German Democratic Republic						
1976	137.7	7.7	46	162	8.5	1.6
1977	137.4	7.9	46	166	9.3	0.9
1978	139.5	8.4	45	176	8.5	0.4
1979	142.6	8.9	44	187	8.3	0.3
Hungary						
1976	59.5	3.6	114	70	5.0	2.1
1977	58.7	3.7	116	73	4.7	2.0
1978	56.3	3.8	119	75	4.2	2.2
1979	55.4	3.9	120	77	4.7	1.5
Poland						
1976	444.0	16.0	43	110	44.4	3.6
1977	482.0	17.7	40	122	53.7	3.8
1978	525.0	19.4	36	133	58.5	4.0
1979	599.0	23.2	32	160	58.4	4.5
1980	646.0	..	..	..	..	..
Romania						
1976	128.0	7.9	117	81	11.9	5.6
1977	138.5	8.6	108	88	13.1	4.7
1978	138.8	8.7	107	89	14.8	3.7
1979	140.0	8.9	107	90	14.5	2.6
1980	146.5	..	102	..	..	..
Soviet Union						
1976	2 400	162.7	230	73	368.6	97.5
1977	2 458	170.9	225	77	364.6	100.8
1978	2 515	179.1	220	80	370.6	111.2
1979	2 540	185.6	218	82	354.8	112.0
1980	..	..	..	..	347.0	117.0
Byelorussian SSR						
1976	105.9	5.9	92	97	15.4	3.9
1977	109.0	6.3	90	103	15.4	3.5
1978	112.3	6.7	87	108	17.4	3.8
1979	115.2	7.2	83	116	15.8	4.0
1980	..	..	..	..	15.1	4.1
Ukrainian SSR						
1976	382.9	24.8	110	72	53.7	15.2
1977	391.0	26.0	108	76	54.4	11.8
1978	399.4	27.2	105	79	53.7	14.1
1979	403.7	28.3	105	82	52.0	13.9
1980	..	..	..	..	49.0	13.0

Sources: As for table 3.2.1.

Table 3.2.6

Supplies of chemical fertilizers and plant protection chemicals and consumption of electricity in agriculture

Country and period	*Fertilizer supplies (in pure nutrient content)* Total (thousand tons)	kg/ha of arable land	*Supplies of plant protection chemicals* Total (tons)	kg/ha of arable land	*Consumption of electricity in agriculture* Total in GWh	KWh per ha of agricultural land
Bulgaria						
1976	658	177	23 352	6.3	999	161
1977	742	199	26 286	7.1	924	149
1978	738	198	35 283	9.4	988	160
1979	820	220	34 839	9.3	1 118	180
Czechoslovakia						
1976	1 674	341	..	..	2 473	354
1977	1 633	333	..	..	2 584	370
1978	1 748	357	..	..	2 750	396
1979	1 745	360	..	..	2 639	381
1980	1 730	358	..	..	..	..
German Democratic Republic						
1976	1 804	380	23 665	5.0	3 500	556
1977	1 670	350	24 502	5.1	3 497	556
1978	1 670	350	25 298	5.3	3 783	602
1979	1 713	359	26 715	5.6	3 799	605
Hungary						
1976	1 388	272	..	..	1 751	259
1977	1 511	298	..	..	1 888	281
1978	1 539	305	..	..	2 062	308
1979	1 502	298	..	..	2 089	314
Poland						
1976	3 671	253	51 096	3.5	3 470	181
1977	3 586	246	57 102	3.9	3 958	207
1978	3 606	252	49 765	3.4	4 325	227
1979	3 567	247	44 369	3.0	4 811	253
Romania						
1976	1 144	117	..	..	2 521	169
1977	1 128	115	..	..	2 481	166
1978	1 480	151	..	..	2 610	174
1979	1 431	146	..	..	2 564	171
1980	1 217	124	..	..	..	..
Plan 1981	1 700	172	51 000	5.2	..	..
Soviet Union						
1976	17 739	80	..	..	82 979	151
1977	18 034	81	..	..	88 367	160
1978	18 420	83	..	..	95 642	173
1979	17 365	77	..	..	102 301	185
1980	18 589	86	512 000	2.3	130 000	235
Plan 1981	20 155	89	..	..	..	..
Byelorussian SSR						
1976	1 523	263	..	..	2 624	268
1977	1 506	260	..	..	2 768	283
1978	1 528	263	..	..	2 962	302
1979	1 452	250	..	..	3 115	320
1980	1 506	243	..	..	..	..
Ukrainian SSR						
1976	3 623	110	..	..	15 285	362
1977	3 725	113	..	..	15 387	365
1978	3 702	112	..	..	16 681	396
1979	3 387	103	..	..	17 974	427
1980	3 686	107	..	..	..	..

Sources: As for table 3.2.1.

Democratic Republic, Poland, Romania and the Soviet Union. Since the beginning of the 1976-1980 period, it decreased in the other three countries, but the total capacity of tractors in terms of power increased in all countries. This indicates a further structural shift in favour of heavy tractors. Tractor power per unit of arable land is still increasing throughout the region.

Targets for producing new machinery and mechanised systems in arable and livestock farming were not fulfilled in the past five-year plan period. All east European countries intend, in the near future, to give priority to the development of the agricultural machinery industries and to increase the supply of modern, highly productive machinery to agriculture on the basis of a long-term CMEA programme for co-operation in agriculture and the food industry. The Soviet Union will concentrate on the complex mechanization of sugar-beet, raw cotton, fibre flax and on improvements in organic and mineral soil fertilizing techniques. Another objective is the mechanization of such labour intensive branches as vegetable, potato, fruit, fodder and livestock production.

Data for supplies of *mineral fertilizers* in 1980 were published only in Czechoslovakia, Romania and the Soviet Union (table 3.2.6). In all countries the supply of fertilizers rose considerably during 1976-1979, but five-year plan targets have not, apparently, been attained. However, data indicate that domestic production of fertilizers exceeded domestic consumption by 15.8 per cent in 1975 and by 18.9 per cent in 1979. The region as a whole could consequently increase domestic consumption by about 20 per cent. But this is not true of all the countries. Bulgaria, Czechoslovakia, Hungary and Poland are net importers of fertilizer, and only Hungary reduced its imports in 1979 compared with 1975.

Mineral fertilizers: production and consumption (based on nutrient content) in thousand tons, pure contents; percentage distribution: total = 100

	East European countries	*Soviet Union*	*East European countries and the Soviet Union*
Production			
1975	10 713	21 998	32 711
1979	12 565	22 137	34 702
Domestic consumption			
1975	10 283	17 251	27 534
1979	10 778	17 365	28 143
Balance			
1975	367	4 747	5 114
1979	1 787	4 772	6 559

Source : CMEA Statistical Yearbook.

The supply of *plant protection chemicals* lagged behind agricultural requirements. Consumption in 1979 was highest in Bulgaria, at 9.3 kg/ha, and in the German Democratic Republic (5.6 kg/ha). The Soviet Union's per hectare consumption in 1980 was 2.3 kg. Romania plans to reach 5.2 kg/ha in 1981. During 1975-1979, the production of plant protection chemicals in east European countries increased from 3.3 to 3.9 kg/ha of arable land; in the Soviet Union it increased from 1.2 to 1.3 kg/ha only. Imports accounted for about half the total consumption of plant protection chemicals for the whole region.

The consumption of *electricity* in 1980 went up considerably in Soviet agriculture, clearly reflecting the increasing mechanization of livestock farming. Agriculture's consumption of electricity in other countries in 1979 showed no big changes.

(iii) Trends in crop production

The *grain harvest* in east European countries and in the Soviet Union totalled 269.4 million tons in 1980, or 5.7 per cent more than in 1979 (table 3.2.7). The growth of grain production was roughly similar for both sub-regions. In Bulgaria only, grain output fell below the previous year's level, but record output was attained in Czechoslovakia, Hungary and Romania. In the Soviet Union, production of all grains rose by 10 million tons.

Winter crops survived the winter of 1979/1980 well everywhere and the harvest in eastern Europe was normal and very good. Dry weather before and heavy rains during harvest time in the biggest production regions in the Soviet Union, however, limited yields to 14.6 q/ha in that country. In 1980, yields of maize were the lowest everywhere for the past five years. Among the four biggest producers of maize, total output increased slightly only in the Soviet Union where the area under maize increased.

Sown area, output and yields of grain (including pulses) in eastern Europe and the Soviet Union in 1976-1980
(Indices, 1971-1975 = 100)

	Output	*Yields per hectare*	*Sown area*
Bulgaria	106.9	104.6	102.2
Czechoslovakia	107.8	107.6	100.1
German Democratic Republic	103.8	98.7	105.2
Hungary	109.7	116.2	94.4
Poland	92.6	97.0	95.5
Romania	129.9	125.5	103.5
Eastern Europe	107.7	108.4	99.4
Soviet Union	112.9	108.9	103.7
Total	111.4	108.3	102.9

Sources : CMEA Statistical Yearbook and 1980 plan-fulfilment reports.

According to preliminary information, total grain output in the past five-year period increased by 11.4 per cent over the previous quinquennium for the region as a whole. In eastern Europe grain output increased by 7.7 per cent. In Romania it rose by 29.9 per cent, but the decline experienced in Poland amounted to 7.4 per cent. The total increase in grain production in the Soviet Union was 11.4 per cent. Improvements in yields were the only factor which contributed to grain output growth in Hungary. In the Soviet Union the increase in land productivity contributed 75 per cent of the increment and the remaining 25 per cent came from an increase in the sown area. However, grain output fell short of the five-year plan targets by 5-10 per cent, and for the whole region by about 8 per cent. A special programme was adopted in Bulgaria to increase grain production in the

TABLE 3.2.7

Production and yields of grain crops

(*Output per year in million tons: yields in quintals per hectare*)

Country and period	*Grains: total*		*Wheat*		*Rye*		*Barley*		*Oats*		*Maize*	
	Output	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*
Bulgaria												
1976 . .	8.56	33.6	3.51	38.2	0.02	12.0	1.78	34.0	0.06	14.6	3.03	41.3
1977 . .	7.67	33.2	3.38	37.2	0.02	11.8	1.48	28.0	0.09	15.3	2.51	35.7
1978 . .	7.58	34.3	3.47	37.1	0.02	14.5	1.49	31.4	0.08	14.9	2.24	37.1
1979 . .	8.36	37.0	3.36	35.0	0.02	14.9	1.54	32.5	0.07	12.5	3.22	48.3
1980 . .	7.72	..	3.84	39.7	0.03	14.0	1.36	32.0	0.05	12.8	2.19	37.7
Czechoslovakia												
1976 . .	9.24	33.4	4.81	37.6	0.56	30.1	2.90	33.8	0.38	19.2	0.51	36.0
1977 . .	10.46	37.4	5.21	40.5	0.64	30.3	3.21	37.5	0.45	26.1	0.79	47.0
1978 . .	11.12	40.0	5.60	44.0	0.63	33.7	3.64	39.6	0.45	30.1	0.62	43.0
1979 . .	9.30	33.5	3.74	33.6	0.49	29.3	3.60	34.6	0.40	26.8	0.95	50.1
1980 . .	10.74	41.3	5.00	..	0.55	..	3.50	..	0.45	..	0.80	..
Plan 1981	11.60											
German Democratic Republic												
1976 . .	8.25	31.8	2.71	35.6	1.46	24.3	3.46	36.0	0.51	26.6	—	22.1
1977 . .	8.77	34.1	2.91	39.8	1.64	26.6	3.68	36.9	0.41	26.9	—	47.5
1978 . .	9.91	38.2	3.15	45.9	1.90	29.1	4.14	40.0	0.60	39.0	—	34.3
1979 . .	8.95	35.3	3.12	43.8	1.83	27.0	3.32	35.2	0.53	39.1	0.1	46.9
1980 . .	9.63	38.1	3.10	43.8	1.92	28.3	3.98	41.1	0.58	37.5	—	44.9
Hungary												
1976 . .	11.49	36.3	5.15	38.8	0.16	16.8	0.75	32.7	0.09	22.4	5.14	38.1
1977 . .	12.44	40.4	5.32	40.5	0.14	15.6	0.71	31.5	0.07	20.2	6.01	46.4
1978 . .	13.53	43.9	5.67	42.8	0.14	17.5	0.76	33.8	0.08	27.9	6.65	51.3
1979 . .	12.17	40.3	3.71	32.6	0.09	13.3	0.71	27.0	0.09	19.6	7.38	54.0
1980 . .	13.60	..	5.20	..	0.14	..	0.80	..	0.10	..	7.00	..
Poland												
1976 . .	21.09	26.5	5.75	31.4	6.92	23.6	3.62	29.9	2.70	24.2	0.23	44.0
1977 . .	19.60	24.0	5.31	28.9	6.25	20.1	3.40	27.5	2.55	23.3	0.23	40.5
1978 . .	21.79	27.1	6.03	32.6	7.43	24.5	3.64	30.2	2.49	24.2	0.12	36.4
1979 . .	17.57	21.8	4.19	27.0	5.20	18.1	3.73	25.4	2.18	20.0	0.18	39.0
1980 . .	18.34	23.3	4.20	26.0	6.60	26.1	3.40	25.8	2.20	22.6	0.10	..
Romania			[a]	[a]								
1976 . .	19.88	30.7	6.77	27.9	..	..	1.23	30.1	0.05	12.2	11.58	34.1
1977 . .	18.71	29.1	6.51	28.2	..	..	1.86	31.2	0.06	11.3	10.11	30.4
1978 . .	19.08	29.7	6.30	27.1	..	..	2.31	31.9	0.06	11.9	10.21	32.1
1979 . .	19.42	30.0	4.72	22.0	..	..	2.04	26.4	0.06	10.0	12.43	37.2
1980 . .	20.20	31.2	6.47	28.4	..	..	2.47	30.5	0.05	9.2	11.15	33.9
Plan 1981	23.74	..	6.51	..	..	..	..	..	..	..	13.71	..
East European Countries												
1976 . .	78.51	30.9	28.70	33.6	9.12	23.8	13.74	32.7	3.79	23.0	20.49	35.8
1977 . .	77.65	30.6	28.64	34.2	8.69	21.5	14.34	32.3	3.63	23.2	19.65	35.2
1978 . .	82.74	33.0	30.22	36.0	10.12	25.6	15.98	34.9	3.76	25.8	19.84	37.4
1979 . .	75.78	30.2	22.82	30.0	7.64	20.1	14.35	28.9	3.34	21.8	24.17	43.2
1980 . .	80.23	..	27.81	..	9.24	..	15.51	..	3.43	..	21.24	..
Soviet Union												
1976 . .	223.76	17.5	96.88	16.3	13.99	15.5	69.54	20.3	18.11	16.1	10.14	30.6
1977 . .	195.73	15.0	92.16	14.8	8.48	12.7	52.69	15.3	18.41	14.1	10.98	32.5
1978 . .	237.18	18.5	120.82	19.2	13.61	17.6	62.08	19.0	18.51	15.3	8.95	35.2
1979 . .	179.18	14.2	90.21	15.6	8.12	12.5	47.95	13.0	15.16	12.4	8.37	31.3
1980 . .	189.20	14.6	98.10	15.9	10.20	11.7	49.00	15.2	15.90	12.8	9.70	21.4
Byelorussian SSR												
1976 . .	7.40	26.8	0.42	29.6	2.19	24.4	3.81	31.4	0.79	25.0	..	..
1977 . .	6.62	23.2	0.38	27.6	2.06	23.2	3.15	25.1	0.78	22.5	..	..
1978 . .	7.28	25.4	0.49	29.5	2.30	26.7	3.45	27.4	0.89	22.8	..	..
1979 . .	4.58	15.1	0.31	18.7	1.58	16.6	2.03	15.6	0.56	14.4	..	..
1980 . .	5.00	15.9	0.38	18.3	1.85	17.2	2.05	16.8	0.59	15.1	..	..

TABLE 3.2.7 (*continued*)

Country and period	*Grains : total*		*Wheat*		*Rye*		*Barley*		*Oats*		*Maize*	
	Output	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*
Ukrainian SSR												
1976 . .	44.57	27.9	14.44	31.1	1.35	19.4	17.31	29.0	2.05	22.7	4.89	28.6
1977 . .	48.52	27.9	27.62	31.9	1.42	17.9	9.22	25.1	1.54	21.0	5.05	29.5
1978 . .	50.61	30.3	29.19	35.2	1.39	20.6	10.88	27.9	1.66	23.0	3.80	32.0
1979 . .	33.97	21.1	17.26	25.8	1.10	16.7	8.57	18.5	1.03	13.5	3.95	27.8
1980 . .	38.30	..	21.30	..	..	..	..	..	..	..	4.30	..
East European Countries and the Soviet Union												
1976 . .	302.27	19.7	125.58	18.5	23.11	18.0	83.28	21.7	21.90	17.0	30.63	34.0
1977 . .	273.38	17.6	120.80	17.2	17.17	16.0	67.03	17.2	22.04	15.1	30.63	34.3
1978 . .	319.92	20.8	151.04	21.2	23.73	20.3	78.06	20.9	22.27	16.4	28.79	36.7
1979 . .	254.96	16.8	113.03	17.3	15.75	15.3	62.30	14.8	18.50	13.4	32.60	39.5
1980 . .	269.43	..	125.91	..	19.44	..	64.51	..	19.33	..	30.94	..

Sources: As for table 3.2.1.

[a] Including rye.

next five years to 1.2 tons per capita, indicating an increase of 37 per cent compared with 1976-1980. Romania plans to increase grain output in 1981-1985 by 23-25 per cent compared with the previous five-year plan period; for the Soviet Union, the increment in output during the same period is set at 16.1-18.5 per cent.

The output of *other basic agricultural crops* in 1980 was seriously affected by adverse weather conditions (table 3.2.8). This was the case for potatoes in particular in some countries: production levels fell 27.2 per cent below 1979 in Czechoslovakia, 46.7 per cent in Poland (a drop of more than 23 million tons), 19.4 per cent in Romania, 31 per cent in the Soviet Union (a fall of roughly the same tonnage as in Poland), and 43.4 per cent in the Ukrainian SSR.

Production of vegetables decreased in Romania, the Soviet Union, Byelorussian and the Ukrainian SSR. Fruit output was given only for Bulgaria (a 2.2 per cent increase) and in Romania (where output was only 43.1 per cent of the 1979 record).

Bulgaria reported a decrease of 29.4 per cent in sugar-beet output and of 33.6 per cent in oil seeds. Czechoslovakia marked a 4.8 per cent fall in sugar-beet, and an increase of 77.5 per cent in oil seed production as against last year's very low level. In Poland sugar-beet production was 26.5 per cent below the 1979 level but oil seed production, at 600,000 tons, exceeded the previous year's output by 133.5 per cent; this was, however, still considerably below normal. The output of sugar-beet in the Soviet Union increased by 4.4 per cent but was also considerably below the level of normal years.

The Soviet Union recorded an excellent raw cotton production in 1980 of nearly 10 million tons. Annual average cotton output of 8.9 million tons in 1976-1980 was 16.5 per cent above the average 1971-1975 level. Practically all cotton production is located in the Central Asian Republics—mainly in Uzbekistan which produces 65 per cent of total output.

Systematic data concerning production and disappearance of *fodder* are not available. The modest 1980 harvest in most countries indicates a further deterioration in fodder balances. The problem has become more acute because of the continued increase in livestock numbers. Except for Hungary, all countries were net importers of coarse grain during 1976-1980. The share of imports was equivalent to 10.2 per cent of total coarse grain production and 9.3 per cent of consumption in the region as a whole. The share of maize in total coarse grain imports was 78.5 per cent. The countries where the share of maize in total grain imports is low imported more pulses (see text table).

Annual average net imports of coarse grain in 1976-1980 [a]
(*Thousand tons*)

		of which: *Maize*	
	Total	*Thousand tons*	*Per cent*
Bulgaria	277	189	68.2
Czechoslovakia	912	825	90.5
German Democratic Republic	2 577	1 501	58.2
Hungary	−56[b]	−191[b]	341.1[b]
Poland	4 075	1 966	48.2
Romania	94	209	222.0
Eastern Europe	7 879	4 499	57.1
Soviet Union	11 404	10 642	93.3
Total.	19 283	15 141	78.5

Sources: CMEA Statistical Yearbook: "The grain situation in 1976-1979 and the outlook for 1979-1980", ECE/AGRI/R.90.

[a] For 1980, preliminary and partial estimates.

[b] Net exports.

Production of fodder crops increased during 1976-1979 by 9.7 per cent in eastern Europe and by 13.8 per cent in the Soviet Union compared with 1971-1975. The only country with negative growth (of 4 per cent) was the German Democratic Republic. At the same time the structure of fodder crops was changed. The Soviet

TABLE 3.2.8

Production and yields of non-grain crops

(Output in thousand tons: yields in quintals per hectare)

Country and period	Potatoes		Vegetables output	Fruit output	Sugar-beet		Oilseeds		Raw cotton	
	Output	Yield			Output	Yield	Output	Yield	Output	Yield
Bulgaria										
1976 . .	351	119	1 587	2 233	2 327	332	463	16.0	3.3	1.3
1977 . .	383	112	1 617	1 775	1 751	249	516	16.6	13.1	7.0
1978 . .	391	105	1 760	2 030	1 600	264	494	14.9	15.9	8.8
1979 . .	424	108	1 673	1 860	2 045	337	584	17.8	17.5	10.9
1980 . .	315	89	..	1 900	1 445	274	376	..	..	..
Czechoslovakia										
1976 . .	4 214	176	829	671	5 249	244	147	17.5	..	..
1977 . .	3 760	159	1 133	574	8 202	380	186	18.7	..	..
1978 . .	3 995	180	1 088	687	7 258	333	195	18.0	..	..
1979 . .	3 725	172	1 049	593	7 613	366	120	12.1	..	..
1980 . .	2 713	..	..	..	7 250	..	213[a]	22.7	..	..
German Democratic Republic										
1976 . .	6 816	114	934	615	5 001	191	327	24.2	..	..
1977 . .	10 313	176	1 527	480	7 424	319	317	23.7	..	..
1978 . .	10 777	186	1 279	483	6 769	290	330	24.5	..	..
1979 . .	12 243	223	1 372	1 063	6 502	263	215	17.3	..	..
1980 . .	9 214	180	1 119	790	7 034	278	317	23.7	..	..
Hungary										
1976 . .	1 396	121	1 613	2 224	3 943	305	324	12.2	..	..
1977 . .	1 650	135	2 024	2 526	3 890	319	272	13.8	..	..
1978 . .	1 883	162	1 787	2 179	4 192	342	400	14.1	..	..
1979 . .	1 454	144	1 790	2 253	3 928	349	517	16.3	..	..
Poland										
1976 . .	49 951	203	3 783	1 865	15 107	272	996	24.2	..	..
1977 . .	41 148	169	3 836	1 637	15 640	294	721	17.5	..	..
1978 . .	46 648	198	4 401	1 730	15 707	300	716	19.9	..	..
1979 . .	49 572	203	4 575	1 791	14 154	311	257	12.5	..	..
1980 . .	26 400	113	..	..	10 400	226	600	17.4	..	..
Romania										
1976 . .	4 788	159	3 593	2 886	6 911	294	1 084	13.7	0.1	0.2
1977 . .	4 207	137	3 244	2 915	6 246	245	1 059	13.3	0.5	2.6
1978 . .	4 465	154	3 662	2 637	5 845	235	1 132	13.8	1.0	5.4
1979 . .	4 562	151	3 529	3 293	6 109	236	1 339	14.3	1.2	6.3
1980 . .	3 676	146	3 412	1 418	5 561	234	1 336	13.5	..	..
Plan 1981	5 350	..	5 200	2 440	8 800	..	1 100[b]	..	..	..
Eastern Europe										
1976 . .	67 516	180	12 339	10 494	38 508	263	3 341	16.9	3.4	1.1
1977 . .	61 461	165	13 381	9 907	43 153	302	3 171	15.7	13.6	6.6
1978 . .	68 159	190	13 977	9 746	41 371	294	3 267	16.0	16.9	8.4
1979 . .	71 980	198	13 988	10 853	40 351	298	3 035	15.1	18.7	10.4
Soviet Union										
1976 . .	85 102	120	24 991	15 260	99 872	266	5 989	10.1	8 278	28.1
1977 . .	83 652	118	24 149	15 275	93 099	248	6 619	11.0	8 758	29.3
1978 . .	86 087	122	27 902	14 394	93 488	248	6 210	10.4	8 499	28.0
1979 . .	90 956	130	27 215	16 303	76 214	204	6 077	10.4	9 161	29.6
1980 . .	66 900	..	25 900	..	79 600	..	..	..	9 960	..
Byelorussian SSR										
1976 . .	14 126	167	699	541	1 067	216	..	..	..	..
1977 . .	11 314	138	637	429	1 352	260	..	..	..	..
1978 . .	14 575	179	895	596	1 324	257	..	..	..	..
1979 . .	15 253	191	797	422	1 383	270	..	..	..	..
1980 . .	9 309	118	707	409	1 120	217	..	..	..	..

TABLE 3.2.8 (*continued*)

Country and period	*Potatoes*		*Vegetables output*	*Fruit output*	*Sugar-beet*		*Oilseeds*		*Raw cotton*	
	Output	*Yield*			*Output*	*Yield*	*Output*	*Yield*	*Output*	*Yield*
Ukrainian SSR										
1976 . .	23 724	138	8 213	3 927	61 840	345	2 111	12.3	..	..
1977 . .	18 805	110	6 944	4 599	55 467	310	2 675	15.7	..	..
1978 . .	23 918	140	8 337	2 883	56 221	310	2 430	14.3	..	..
1979 . .	23 128	135	7 216	4 840	47 085	263	2 639	16.0	..	..
1980 . .	13 100	..	6 700	..	47 200	..	2 300 [b]	..	..	..
Soviet Union and Eastern Europe										
1976 . .	152 618	141	37 330	25 754	138 380	265	9 330	11.8	8 281	27.8
1977 . .	145 113	135	37 530	25 182	136 252	261	9 790	12.2	8 772	29.1
1978 . .	154 246	145	41 878	24 140	134 859	261	9 477	11.8	8 516	27.8
1979 . .	162 936	154	41 203	27 156	116 565	229	9 112	11.6	9 180	29.5

Sources: As for table 3.2.1. [a] Rape only. [b] Sunflower and rape.

Union reduced slightly, and Romania considerably, the share of roughage in favour of grain. All other countries marked increases in the share of roughage and declines in the share of grain. In Hungary and Romania the share of root fodder rose slightly, but decreased in all other countries (see text table below).

Growth and structure of fodder crop output in 1976-1979

	Indices of total output (1971-1975 = 100)	*Percentage share: country total = 100*		
		Grains and pulses	*Root fodder crops*	*Roughage*
Bulgaria	112.1	58.4	2.3	39.3
Czechoslovakia	107.1	33.7	4.5	61.8
German Democratic Republic	96.0	38.0	13.0	49.0
Hungary	110.5	62.5	2.8	34.7
Poland	108.8	34.2	23.4	42.4
Romania	127.5	66.2	7.5	26.4
Eastern Europe	109.7	44.8	13.0	42.2
Soviet Union	113.8	37.8	7.1	55.1
Total.	112.6	39.8	8.8	51.4

Source: CMEA Statistical Yearbook.

Note: This table is based on production in terms of nutrients. Basic domestic fodder production includes: feed grains and pulses (nutrient coefficient weighting = 1.0); potatoes and feed roots (nutrient coefficient weighting = 0.2) and roughage (nutrient coefficient weighting = 0.4). Roughage includes only hay from natural and cultivated grassland (annual and perennial), together with silage (maize and green fodder). Estimates by the ECE secretariat indicate that these items account for 68-72 per cent of total domestic fodder consumption (in standard oat-based feed units) in eastern Europe and the Soviet Union together—the rest (28-32 per cent) being accounted for by grazing, domestic waste, micro-biological industry feed additives, and of course imported grains, oilseeds and other feed items.

Consumption of fodder in the Soviet Union expressed in nutrient units during the 1976-1979 period was 2.6-2.7 tons per standard livestock unit which is considered to be 25-30 per cent below rational feeding norms.[130] Plans for 1981 contain higher targets for the output of all kinds of fodder crops with the aim of improving animal diets and reducing imports.

Improvements in the structure of fodder output are also envisaged. The need to increase grain production remains the key problem in all countries and plans envisage increases in both the sown area and in yields per hectare. Special attention is being paid to the protein-rich crops, mainly pulses and some kinds of grasses.

(iv) Livestock and livestock output

In 1980 cattle numbers increased by one million in the region as a whole, Poland, the Soviet Union and the German Democratic Republic having contributed the bulk of the rise (table 3.2.9). Pig numbers increased in Czechoslovakia, the German Democratic Republic, Poland and Romania and totalled 1.6 million more than the previous year in the region as a whole. Sheep herds increased slightly in eastern Europe but decreased by 1.9 million in the Soviet Union as a result of which the number of sheep and goats in the region decreased by 1 per cent. Most countries reported an increase in poultry numbers.

During 1976-1980, the number of cattle rose by an annual average of 1.1 million and in 1980 there were 3.8 per cent more than in 1975. The number of pigs increased at a faster pace—by 4.4 million annually and by 18.7 per cent for the whole period. Herds of sheep increased by only 2.5 per cent but poultry increased by about 28 per cent during the five years. As a result of differences in rates of growth a certain shift occurred in herd structures (see text table on page 113).

In the Soviet Union, the share of cattle, sheep and goats in total herds declined but that of pigs and poultry went up. Changes in eastern Europe were similar but less marked, and there was a slight increase in the share of sheep and goats. Changes in the structures of herds affect fodder consumption, since increases in the pig and poultry population expand the relative demand for fodder grain. In all countries production of roughage could be raised considerably, and this could provide a basis for the future accelerated expansion of the cattle and sheep population.

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[130] G. Elistratov, "The priority task", *Ekonomika Sel'skogo Khoziaistva*, 1980, No. 7, pp. 5-6 (in Russian).

TABLE 3.2.9

Livestock and livestock output

	Livestock (thousand head)					Livestock output (thousand tons)				
Country and period	Cattle	of which: Cows	Pigs	Sheep and goats	Total conventional units[a]	Meat total	of which: Poultry	Milk total	Eggs (million)	Wool
Bulgaria										
1976	1 787	721	3 456	10 031	4 319	732	130	1 816	1 816	33.8
1977	1 797	724	3 399	10 470	4 383	704	149	1 929	1 993	34.0
1978	1 818	743	3 772	10 479	4 498	726	158	2 003	2 174	34.3
1979	1 839	736	3 830	10 969	4 584	782	162	2 205	2 253	35.1
1980	1 848	743	3 805	10 859	4 585	787	..	2 212	2 480	35.1
Czechoslovakia										
1976	4 654	1 898	6 820	895	6 627	1 322	141	5 485	4 492	3.6
1977	4 758	1 898	7 510	924	6 908	1 383	152	5 601	4 639	3.8
1978	4 887	1 909	7 601	937	7 059	1 448	161	5 707	4 690	4.0
1979	4 915	1 903	7 588	938	7 095	1 467	169	5 723	4 732	4.1
1980	5 002	1 902	7 894	940	..	1 487	174	6 004	4 998	..
German Democratic Republic										
1976	5 471	2 146	11 291	1 912	8 755	1 808	131	7 393	5 217	10.6
1977	5 549	2 158	11 757	1 961	8 948	1 767	134	7 209	5 266	10.4
1978	5 572	2 141	11 734	1 994	8 989	1 809	135	7 405	5 219	11.0
1979	5 596	2 125	12 132	2 004	9 142	1 824	140	7 193	5 219	11.3
1980	5 722	2 138	12 871	2 064	9 452	..	..	..	..	..
Hungary										
1976	1 888	766	7 854	2 364	5 448	1 324	308	1 941	3 995	8.6
1977	1 949	781	7 850	2 630	5 536	1 467	320	2 151	4 528	9.9
1978	1 966	790	8 011	2 876	5 647	1 482	331	2 347	4 748	10.8
1979	1 950	780	8 355	2 938	5 695	1 522	331	2 465	4 721	11.4
1980	1 954	789	8 400	3 000	..	..	..	2 480	..	..
Poland				[b]						
1976	12 002	5 786	16 766	3 151	18 455	2 896	294	16 534	8 020	10.6
1977	12 359	5 879	20 591	3 593	19 895	2 883	341	16 941	8 494	12.3
1978	12 409	5 929	21 108	3 704	20 021	3 142	377	17 131	8 531	12.8
1979	12 164	5 840	20 983	3 633	19 732	3 257	419	16 965	8 670	13.6
1980	12 600	..	21 300	4 200	..	3 172	..	15 031	8 852	..
Romania										
1976	6 351	2 569	10 193	14 775	11 780	1 449	303	4 981	5 670	32.0
1977	6 306	2 580	9 744	14 867	11 556	1 533	338	5 392	5 794	34.7
1978	6 511	2 670	10 337	16 024	12 243	1 582	356	5 597	6 292	35.9
1979	6 513	2 682	10 899	16 195	12 345	1 760	411	5 659	6 766	37.3
1980	6 485	2 666	11 542	16 212	12 551	1 597	..	5 043	6 566	35.4
Plan 1981	6 940	2 916	13 000	17 500	..	1 982	..	5 805	6 851	42.5
Eastern Europe										
1976	32 153	13 886	56 380	33 128	55 384	9 531	1 307	38 150	29 210	99.2
1977	32 718	14 020	60 851	34 445	57 226	9 757	1 434	39 223	30 714	105.1
1978	33 163	14 182	62 563	36 014	58 457	10 189	1 518	40 190	31 612	109.3
1979	32 977	14 066	63 787	36 677	58 593	10 612	1 632	40 210	32 361	112.8
1980	33 611		65 812	37 275						
Soviet Union										
1976	110 346	41 987	63 055	145 373	138 372	13 583	1 411	89 675	55 519	432.0
1977	112 690	42 592	70 511	146 611	143 927	14 722	1 691	94 929	60 356	456.0
1978	114 086	43 016	73 484	148 104	147 281	15 501	1 902	94 677	63 519	464.0
1979	115 100	43 310	73 898	149 423	148 895	15 481	2 017	93 341	64 539	469.0
1980	115 500	43 400	73 500	147 000	..	15 100	..	90 700	67 700	461.7
Plan 1981	..	..	..	..	..	16 000*	..	95 000*	68 300*	473.5*
Byelorussian SSR										
1976	6 494	2 688	4 158	554	..	825	57	6 087	2 544	1.0
1977	6 705	2 742	4 567	585	..	885	59	6 435	2 742	1.1
1978	6 776	2 751	4 557	557	..	910	61	6 420	2 861	1.1
1979	6 735	2 748	4 437	564	..	925	78	6 252	2 938	1.1
1980	6 760	2 737	4 562	570	..	873	88	6 157	3 033	1.1

Table 3.2.9 (*continued*)

Country and period	*Livestock (thousand head)*					*Livestock output (thousand tons)*				
	Cattle	*of which: Cows*	*Pigs*	*Sheep and goats*	*Total conventional units*[a]	*Meat total*	*of which: Poultry*	*Milk total*	*Eggs (million)*	*Wool*
Ukrainian SSR										
1976	24 196	9 002	18 195	8 911	..	3 137	392	21 157	12 018	24.9
1977	24 924	9 143	19 831	9 173	..	3 465	449	22 467	13 154	29.6
1978	25 379	9 228	20 659	9 201	..	3 617	475	22 480	13 796	27.7
1979	25 552	9 289	20 149	9 185	..	3 626	..	21 625	13 949	28.3
1980	25 400	9 300	19 900	9 100	..	3 500	..	21 100	14 400	27.1
Soviet Union and Eastern Europe										
1976	142 499	55 873	119 435	178 501	193 286	23 114	2 718	127 825	84 729	531.2
1977	145 408	56 612	131 362	181 056	201 153	24 479	3 125	134 152	91 070	561.1
1978	147 249	57 198	136 047	184 118	205 738	25 690	3 420	134 867	95 131	573.3
1979	148 077	57 376	137 685	186 100	207 488	26 093	3 649	133 555	96 900	581.8
1980	149 111	..	139 312	184 275	..	..	..	..	..	..

Sources: As for table 3.2.1.

Note: Livestock numbers are on the basis of end-year censuses. Meat is in carcass weight. Eggs include only hens' eggs. Wool is raw wool on a greasy basis.

[a] In terms of cows. Conversion ratios as follows: Cattle (other than cows) 0.6; pigs 0.3; total sheep and goats 0.1; horses 1.0; and poultry 0.02. Source: *Spravochnik po planirovaniju sel'skogo khoziaistva* (Moskow "Kolos" 1974) p. 151.

[b] Goats excluded.

Animal production in the region as a whole in 1980 decreased because of fodder shortages. Bulgaria and Czechoslovakia reported an increase in the production of meat, milk and eggs. Poland reported an increase of 2.1 per cent in eggs and decreases in meat and milk output of 2.6 and 11.4 per cent respectively. In Romania there was a decrease in all kinds of basic animal products. The Soviet Union reported a decline in meat production of 2.5 per cent, milk 2.8 per cent and wool 1.6 per cent and an increase of 4.9 per cent in the output of eggs. According to preliminary estimates, production of meat in the region in 1980 was 3.8 per cent above the 1975 level, milk production stagnated but eggs increased by 24 per cent. Romania and the Soviet Union have published livestock product targets for 1981-1985. In the former country an increase in the output of all basic animal products is envisaged: meat is to rise by 45-47 per cent, cow's milk by 36-41 per cent, eggs by 13-17 per cent and wool by 32-39 per cent. In the Soviet Union, a 2.1-2.6 million tons increase in meat production compared with the last five-year plan period is planned for 1981-1985; the corresponding figure for milk is 4.7-6.8 per cent, for eggs −15.5 per cent and for wool −3.0-5.1 per cent. The highest growth in meat production is scheduled for cattle. The 25 million cattle slaughtered yearly at present in the Soviet Union weigh on average 320-330 kg. It would be technically possible nowadays to increase total production of meat by about 1.5 million tons (by about 10 per cent) if the increase in the average weight of beef cattle at slaughter were increased to 440-450 kg. A large share of new investment is earmarked for the construction of pig and poultry complexes, and

Structure of herds [a]

(*Percentage share, total livestock = 100*)

	Cattle		*Pigs*		*Sheep and goats*		*Poultry*	
	1975	*1979*	*1975*	*1979*	*1975*	*1979*	*1975*	*1979*
Bulgaria	33.5	30.5	26.3	25.1	23.4	23.9	17.3	17.9
Czechoslovakia	54.1	52.3	31.1	32.1	1.4	1.3	12.4	13.6
German Democratic Republic	47.3	46.0	39.0	39.8	2.2	2.2	10.7	11.2
Hungary	28.8	26.0	41.6	44.0	4.1	5.2	22.4	22.6
Poland	48.1	48.8	30.9	31.9	1.5	1.8	9.5	8.6
Romania	43.1	40.3	24.2	26.5	13.1	13.1	14.4	15.5
Total	44.6	43.4	31.5	32.7	5.8	6.3	12.7	13.2
Soviet Union	61.1	58.0	12.7	14.9	10.8	10.0	10.8	13.3
Total	56.2	53.9	18.2	19.9	9.3	9.0	11.3	13.2

Source: CMEA Statistical Yearbook.

Note: See table 3.2.9.

[a] In terms of livestock units.

to promote the use of modern industrial technology in pig and poultry rearing. Sheep herds will be increased in the central regions of the Russian Federation, in the Ukrainian and Byelorussian SSR, the Baltic Republics and especially in Kazakhstan and in the Kirgizian SSR.

(v) Policies to promote agricultural development

With regard to agricultural policies, Bulgaria, Hungary and Romania are concentrating efforts on expanding their export potential and to the building up of stocks. Czechoslovakia, the German Democratic Republic and Poland stress, above all, rises in agricultural self-sufficiency. The Soviet Union aims at greater stability in year-to-year production, and the avoidance of damage caused by currently large fluctuations from one year to another.

Everywhere emphasis is on increasing efficiency to attain planning objectives under conditions which are more complex than in the previous decade. In general, supplies of basic factor inputs for agricultural production have not improved in any country. Total (and per capita) cultivated land is either stagnating or on the decline. The available labour force is shrinking and deteriorates in age structure—though it improves in skill. Both domestic and imported inputs—from machines and chemicals to fuel and power—are becoming more expensive. Hence, while capital investment in new technology is limited, it remains the only dynamic factor in agricultural growth. Therefore, all countries are trying to shape their investment policies and management systems with a view to stimulating progressive structural changes, more balanced development, the implementation of industrial methods of production and better utilization of factor inputs. Organizational structures, planning methods, management and incentive systems in agriculture are having to be modified to meet new conditions.

In 1980 the number of agro-industrial complexes in Bulgarian agriculture was enlarged and adapted to a new network of administrative units. Agricultural brigades were also reorganized; they are to be enlarged and will work land areas of 3-10 thousand hectares. This reorganization is expected to stimulate the introduction of industrial technologies and to enhance the operational autonomy of the units. Brigades will be of two types: specialized, and basic production units.

In Czechoslovakia further measures have been taken to promote the development of joint farm enterprises and associations and hence to increase the degree of horizontal co-operation and vertical integration of agriculture with industry.

The new organizational structure for agriculture in the German Democratic Republic appears to have been set up.[131] Emphasis has been placed on the formation of specialized enterprises in crop and animal production. A number of forms of horizontal co-operation and vertical integration of agro-industrial processes have been used to create new financially autonomous production and service units. In each of the 14 regions there also exist "agro-industrial associations"; these are a special type of integrated unit, which includes various kinds of agricultural and industrial enterprises involved in the various stages of the production and processing of one or more specialized crop products. In addition, 30 industrial-type enterprises (combines) have been established for the fattening, processing and supply of animal products.

Large-scale agricultural enterprises in Hungary continue to be developed on the basis of industrial production systems. New measures aim to stimulate production on private and part-time farms.

The Polish Government has promoted the development of agricultural circles as an organizational form for the self-management of individual farms, and put at their disposal the Agricultural Development Fund. The number of specialized individual farms continued to increase.

The regional agricultural councils established in Romania in 1979 co-ordinated co-operation between farms and enterprises of all kinds dealing with agricultural production and its processing. Measures were taken to support private farms and the development of small industries.

The joint farm enterprises in the Soviet Union increased by about 10 per cent and now number more than 10,000. The organization of modern basic units in Soviet agriculture is not yet over and is expected to continue.

At national level, central bodies were established in Bulgaria and Romania during 1979 with responsibility for the planning and management of all branches and activities of the national agro-industrial complexes. In other countries, the responsibility for planning and management of different activities in the national agro-industrial complexes is still shared between ministries organized on branch lines. In the Soviet Union, about 35 all-Union ministries and another 70 Union-Republican ministries are charged with the planning and management of food production. Problems of co-ordination are likely to lead in the near future to the creation of a specialized central body with responsibility for co-ordinating the whole national agro-industrial complex of the Soviet Union.

The function of middle-level management is executed by the Union Republic in the Soviet Union, and by local authorities in all other countries within the normal administrative structures. Bulgaria is the only exception: regional agro-industrial unions have been established on a full cost-accounting principle and thus bear financial responsibility for decisions.

Policy measures for further improving *planning in agriculture* were implemented in most countries during 1980, mainly in connection with preparatory work for the next five-year plan. Changes in methods and techniques of planning include a reduction in the number of compulsory indicators at enterprise level. On the other hand, the planning of state and co-operative farms has been integrated. In Hungary and Bulgaria, the basic economic organization (enterprise) takes full responsibility for the short-term planning of production, and material and labour supplies and financial resources, subject to over-all conformity with existing regulations. From 1981 the number of centrally determined plan indicators in the Soviet Union has been reduced. For collective farms, only state procurements and the supply of basic inputs will be planned centrally; for state farms, targets for wage-

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[131] Main types of agricultural organizations;

	1976	*1980*
State farms	450	469
Crop producing co-operatives (specialized)	161	1 047
Animal rearing co-operatives (specialized)	3 421	2 899
Crop producing co-operative departments	1 024	87
Horticultural co-operatives	241	213

Source: Statistical year-book of the German Democratic Republic.

supplements, profit, investments and assets to be put into operation will also be centrally fixed.[132]

Imbalances in the development of agro-industrial complexes is another area in which improvements in planning need to be elaborated. Five-year projections for the development of the national agro-industrial complexes in the Soviet Union, Bulgaria and other countries will henceforth constitute a single aggregate for planning purposes. Grain production programmes have been announced in Bulgaria, Hungary and Romania. In the Soviet Union a decision on the drafting of a special food supply programme has been published. This will combine guidelines for the over-all development of agriculture, of the branches of industry that service it and of the procurement, storage, transportation and processing of agricultural output—including the development of the food industry and retail trade in foodstuffs. The national agro-industrial complex will not only be planned, but also financed and managed as a single unit. The food programme will be an organic component of the next five-year plan.[133] A number of complex sub-programmes are to be drawn up for the production of grain, vegetables, fodder and basic animal products and are to be integrated into the programme as a whole. From 1982, a separate plan for agriculture will be drawn up in Romania. It will not formally be a constituent part of the over-all national plan, as at present, but a specific agricultural production plan dealing with land improvement and development.

The existing system of *pricing* in agriculture is under revision. Procurement prices in Bulgaria, Czechoslovakia, the German Democratic Republic and Hungary are based on production cost and profit norms which will be reviewed periodically; in Hungary and Bulgaria especially, these norms themselves depend directly on price movements on world markets.

In 1980 practically all countries announced immediate or imminent increases in procurement prices—in the latter case with effect from the beginning of 1981. These price changes were intended to improve the financial position of agricultural enterprises (and hence reduce subsidies)—in particular by adjusting price levels in response to the rise in price of basic inputs—machinery and equipment, mineral fertilizers and plant protection chemicals, fuels and salaries.

From 1 January 1980, new wholesale prices were established in Bulgaria; all of them, including those for agricultural production, are based on world market prices. Bulgaria has also adopted measures to encourage the growth of low domestic labour productivity; temporary price premiums, expressed as a percentage of the value of sales, will be paid for increased production by producers in mountain areas. The price of food industry inputs—in the form of agricultural products—are now costed in terms of world market prices.[134] A further increase in procurement prices was also announced with effect from 1 January 1981, which will transfer additional revenues amounting to 400 million leva to agriculture. Prices for hard wheat have been raised by 39.4 per cent, sugar-beet by 14.7, beet by 14.9, mutton by 30, milk by 14.5 and wool by 63 per cent. The prices paid for tobacco, vegetables and fruit will also increase.[135]

Czechoslovakia introduced higher procurement prices for cattle and milk on 1 January 1980. The total effect of the increase was estimated at 5.1 billion crowns, of which 3.9 billion crowns were allocated to cover the increased production costs of livestock output. These prices will increase farm incomes by 16 per cent. The prices of mixed fodder have gone up by 13 per cent and of mineral fertilizers by 15 per cent. Taking into account these price changes, however, state subsidies still amounted to 3.3 billion crowns in 1980.

In the German Democratic Republic procurement prices have remained unchanged since 1976. In the past when an increase in prices of some agricultural products was necessary a reduction in the price of other products was made in order to keep the aggregate level of agricultural prices unchanged. Price increases for rye, potatoes, protein-rich fodder crops, milk and beet were announced for 1 January 1981.[136]

Agricultural prices in Hungary have been raised gradually in recent years. The agricultural price level was kept within limits determined by the low food prices paid by consumers. The administered state price is set with reference to a form of subsidy designed to refund to industrial producers the difference between normal industrial producer prices and the lower prices paid by agricultural enterprises for inputs of industrial origin. A new round of price increases was announced to take effect on 1 January 1981.[137]

After 1977 purchase prices in Poland increased on average by 70 per cent for buckwheat, peas, beans, poppy seed and mustard seed. In 1980 it was announced that procurement prices for milk and beef, pork and poultry were to be increased at the beginning of 1981 and that procurement prices for cereals, rape, sugar-beet, hops and tobacco were to rise on 1 July 1981. The average total increase is estimated at about 16 per cent. At the same time the price of industrial inputs for agriculture are to be frozen during 1981.

With effect from 1 January 1981, Romania will increase contract and other production prices paid to state farms, agricultural production co-operatives and private farms by 11.8 per cent. At the same time the tariffs of the agricultural mechanization stations are to be adjusted in line with their real costs. This increase in prices will reduce the net revenue of farm producers by about 5 billion lei, which will be covered by the state budget in 1981; retail prices will be changed from 1982.

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[132] "Improvement in planning and economic stimulation of agricultural production and procurement", Decree of 14 October 1980, *Ekonomicheskaya Gazeta*, 1980, No. 52, pp. 5-7.

[133] Speech of L. Brezhnev delivered in Kazakhstan: *Pravda*, 30 August 1980.

[134] N. Dimitrova, "The new procurement prices", *Ikonomicheski Zhivot*, 1980 (in Bulgarian).

[135] Decree published in *Rabotnichesko Delo*, 15 December 1980.

[136] *Gesetzblatt der DDR*, Teil 1, No. 16, 1980.

[137] Prices of capital equipment and materials used in agriculture increased as follows: machinery by 2 per cent, machine parts by 7-8 per cent, fertilizers and pesticides by 6 per cent, high-protein fodder by 5-6 per cent and services by 5 per cent. Government subsidies for energy have been abolished. Procurement prices per kilogram of production went up as follows: wheat by 0.20 forints, fodder 0.25, maize 0.18, sugar-beet 0.05, tobacco 2.00, beet 1.60, pork 2.00 and poultry by 2.50 forints. The over-all procurement price increase amounts to 5 per cent. The new prices for field crops will go into effect on 1 July 1981 but for meat from 1 January 1981. This increase in procurement prices covers about 80 per cent of the farmers' rise in production costs. The remaining 20 per cent is expected to be offset by increasing efficiency on farms.

Procurement prices in the Soviet Union increased in 1979 as against 1975 by 5.1 per cent, within which prices of arable products rose by 0.7 per cent and of animal products by 8.1 per cent on average. At the Plenary Session of the Central Committee of the CPSU in July 1978, defective price formation in agriculture was described as a factor impeding the introduction of specialization, joint farm co-operation and the growth of agricultural production. From 1 January 1979, procurement prices were increased for milk, cream, butter, wool, karakul and astrakhan lambskins, sheep and goat hides, late potatoes for food and potatoes for processing, cucumbers, tomatoes, onions and garlic; these price increases amounted to 3.2 billion roubles. From the beginning of 1981 the 50 per cent premiums paid to producers for over-fulfilment of procurement plans, totalling 3.65 billion roubles yearly, have been consolidated with procurement prices. Price supplements of 50 per cent, equivalent in total to 4 billion roubles, will be paid to producers who increase sales of agricultural products over the previous year's level.[138]

In several countries measures have been announced to reduce or abolish state subsidies in the near future. On the other hand new fiscal measures are to be introduced for land and income taxation which are expected to improve income distribution and equalize economic conditions for agricultural enterprises.

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[138] A. Krasnopivtsev, "Improving agricultural planning", *Ekonimicheskaya Gazeta*, No. 2, 1981 (in Russian).

3. TRENDS IN INDUSTRY

Gross industrial production in the region rose by an estimated 3.3 per cent in 1980, the lowest rate of expansion during 1976-1980 (table 3.3.1). This continued a slowdown in the rate of growth of industrial production which started in the region in 1974, when the aggregate rate equalled 8.5 per cent. The trend was interrupted only in 1977, when the 6.0 per cent rate achieved was 0.5 percentage points higher than in 1976. In the east European countries, where a rise of 2.6 per cent was recorded in 1980, the slowdown—which also started in 1974 when a 9.5 per cent rate was achieved—was steeper than in the Soviet Union; after growing by 7 per cent in 1977, annual drops in rates of growth were 1.3 percentage points in 1978 and 1979 and 1.8 percentage points in 1980. Industrial expansion in the Soviet Union slowed down as well from a peak rate of 8 per cent in 1974. The annual drop was, however, smaller, and the trend was reversed in 1977 and 1980—though the upturns were only fractional; in 1980 industrial growth at 3.6 per cent was only 0.2 percentage points higher than in 1979.

In individual east European countries the deceleration was less regular. Bulgaria, Czechoslovakia and Poland recorded peak rates in 1975, and up to 1977 the trend in the region was mixed, with most countries thereafter experiencing a marked slowdown. There are two exceptions: in Bulgaria, the decelerating tendency started after 1978; in the German Democratic Republic industrial output performance followed a different path, rising

Table 3.3.1

Gross output, employment and labour productivity in industry

(*Annual percentage change*)

	Gross output	*Employment*	*Labour productivity*	*Gross output*	*Employment*	*Labour productivity*
		Bulgaria			*Hungary*	
1976	6.8	1.3	5.3	4.6	(−1.0)	5.6
1977	6.8	0.3	6.6	6.6	(−0.1)	6.7
1978	6.9	1.7	5.0	4.9	—	4.9
1979	5.4	0.9	4.5	3.0	(−1.6)	4.6
Plan 1980	6.3	1.7	4.5	3.5-4.0	(−0.5)	−4.5
1980	4.0	0.3	3.7	1.7	(−2.8)	1.1
Plan 1981	5.6	..	..	3.0-3.5	(−0.5)	3.8
		Czechoslovakia			*Poland*	
1976	5.5	0.6	4.9	9.3	0.4	8.8
1977	5.7	0.7	5.0	6.9	1.2	5.6
1978	4.8	0.7	4.1	4.9	0.0	4.9
1979	3.7	0.7	3.0	2.7	0.0	2.7
Plan 1980	4.0	0.8	3.2	3.0-4.2[d]	(−0.2-1.3)[b]	4.4[c]
1980	3.2	0.7	2.5	(−1.3)[d]	(−0.2)	(−1.0)
Plan 1981	2.9	..	..	1.0	..	..
		German Democratic Republic			*Romania*	
	[a]					
1976	5.9	0.9	4.9	11.4	5.1	6.0
1977	5.4	0.3	5.1	12.5	2.9	9.3
1978	3.7	0.5	3.2	9.6	2.5	6.9
1979	4.8	0.6	4.2	8.0	3.9	3.9
Plan 1980	4.7	0.2[b]	4.5	11.4	2.5[b]	8.7
1980	4.7	0.1*	4.6*	6.5	2.3	4.2[c]
Plan 1981	5.0	..	..	8.1	1.0	..
		Soviet Union			*Eastern Europe*	
1976	4.8	2.2	2.6	7.4	1.1	6.2
1977	5.7	1.7	3.9	7.0	1.3	5.6
1978	4.8	1.7	3.0	5.7	0.9	4.8
1979	3.4	1.3	2.0	4.4	0.8	3.5
Plan 1980	4.5	0.7[b]	3.8[c]	5.2	0.5	4.8
1980	3.6	1.0[b]	2.6[c]	2.5	0.3	2.1
Plan 1981	4.1	0.5[b]	3.6[c]	3.9	..	..

TABLE 3.3.1 (*continued*)

	Gross output	Employment	Labour productivity	Gross output	Employment	Labour productivity
	Byelorussian SSR			*Eastern Europe and Soviet Union*		
		b	c			
1976	7.0	2.3	4.6	5.5	1.9	3.5
1977	8.3	2.6	5.6	6.0	1.6	4.3
1978	7.8	2.7	5.0	5.1	1.4	3.6
1979	6.9	2.6	4.2	3.7	1.0	2.8
Plan 1980	5.9	1.6	4.2	4.7	0.7	3.9
1980	6.0	1.8	4.1	3.3	0.8	2.5
Plan 1981	4.1			4.0		
	Ukrainian SSR					
		b	c			
1976	4.1	1.8	2.3			
1977	5.7	1.9	3.7			
1978	4.5	1.9	2.6			
1979	3.0	1.4	1.6			
Plan 1980	4.0	1.3	2.7			
1980	2.2	1.1	1.1			
Plan 1981	3.5					

Sources: National statistics, CMEA year-books, plans and plan-fulfilment reports.

Note: Unless otherwise indicated, productivity figures are derived from output and employment data. This may differ from officially reported productivity changes because of differences in coverage and definitions.

[a] Commodity production.

[b] Derived from output and productivity data.

[c] Reported.

[d] Sales.

from its lowest rate of 3.7 per cent in 1978 to 4.8 and 4.7 per cent in 1979 and 1980 respectively. There were very sharp decelerations in Hungary and Poland, negative growth rates being reported by both in 1980 and also in 1979 by Poland.

Industrial policy in all countries in 1980 took into account the obvious fact that the period of extensive growth based on virtually unlimited labour and material inputs is over. Policy measures were hence oriented towards bringing qualitative growth factors to the fore (labour productivity, technical progress, management efficiency). Recognizing that constraints in the labour supply as well as the higher cost and sometimes even reduced supplies of energy and raw materials have precluded the continuation of the industrial development policies pursued in the early 1970s—and even, in some countries, up to 1978—particular attention was paid to increasing the role of investments, rationalization and structural shifts in investment priorities in favour of raw materials and the fuel and power producing branches. Nearly all countries spent between 50 and 60 per cent of their industrial investments on the energy and raw material branches. Economic and administrative measures to economize material inputs were introduced or strengthened. The shift of investments was however limited by the lack of suitable resources for exploitation, and this led in some countries even to decelerations in the volume of flows to these branches. But the shifts which did take place restricted the sums available for other branches within and outside industry. Consequently, the share of rationalization investments in existing capacities increased and only limited numbers of new starts are reported.

The second sector of high priority in the allocation of investment resources in all countries was engineering, where as a rule expenditures rose faster than for industry as a whole. High expansion rates in engineering investment were motivated as much by the need to strengthen export potential as to provide equipment and machinery for modernizing domestic capacities (see tables 3.3.3 and 3.3.4). These developments were backed up by new economic and administrative measures to improve management and planning in industry, and also to rectify shortcomings in the economic mechanism.

Trends in the annual rates of growth of industrial production do not fully explain the *pace of industrial production* in the countries of the region. During 1976-1980, the average annual rates of growth in most east European countries and the Soviet Union ranged between 4-5 per cent. Only in Bulgaria and Romania, where the pace of industrialization was more rapid, were rates as high as 6.2 and 9.5 per cent (table 3.3.2). By 1980 industrial output in the region as a whole was 26 per cent higher than in 1975. This high increase in industrial capacities was a result of the priority given to industry in the development plans and policies of all countries. The industrial expansion was faster in east European countries (an increase of 30 per cent as compared with the 1975 level) than in the Soviet Union (24.4 per cent), largely because of rapid industrialization in Bulgaria and Romania. In all other countries in eastern Europe, the rise was between 18 per cent (in Hungary) and 27 per

TABLE 3.3.2

Output and productivity indicators in industry

(*Average annual percentage change*)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Gross output							
1971-1975	8.9	6.7	6.3	6.5	10.6	13.2	7.4
Plan 1976-1980 . .	9.2	5.7-6.0	6.0	6.0	8.2-8.5	10.2-11.2	6.3
1976-1980	6.0	4.6	4.9	3.4	4.5	9.5	4.5
Plan 1981-1985 . .	5.4-6.2	4.0	..	3.5-4.1	..	8.0-9.0	4.7-5.1
Employment							
1971-1975	2.7	0.5	0.3	0.2	2.8	6.5	1.5
1976-1980	1.3	0.6	0.5	−1.1	0.3	3.6	1.6
Labour productivity [a]							
1971-1975	6.1	6.1	6.0	6.3	7.5	6.4	5.9
Plan 1976-1980 . .	8.5	5.3	5.5	6.0	7.4-7.8	8.5-9.0	5.5
1976-1980	4.6	4.0	4.4	4.6	3.8	6.0	2.8
Fixed assets							
1971-1975	9.4	5.5	6.5	8.1	9.7	12.3	8.6
1976-1980	9.5	6.1	5.7	7.5	8.8	9.9	7.7
Capital intensity [b]							
1971-1975	7.3	4.8	6.2	7.9	6.7	5.5	7.0
1976-1980	8.4	5.5	5.1	9.0	8.2	6.1	6.0
Capital productivity [c]							
1971-1975	−0.6	1.1	−0.2	−1.6	0.6	0.7	−1.1
1976-1980	−3.1	−1.4	−0.7	−3.8	−3.9	0.5	−2.9
Total productivity [d]							
1971-1975	3.7	4.0	3.5	3.1	4.7	4.1	3.0
1976-1980	1.7	1.9	2.4	1.2	0.7	4.1	0.5
Fixed investments							
1971-1975	5.9	7.1	4.0	6.2	21.9	12.3	6.8
1976-1980	5.4	5.7	5.7	5.6	−5.5	9.6	3.4

Source: National statistics and CMEA year-books, plans and plan-fulfilment reports.

Note: The figure in employment and labour productivity may differ slightly from officially reported changes because of differences in coverage and definitions.

[a] Gross output per employee.

[b] Fixed assets per employee.

[c] Gross output-fixed assets ratio.

[d] The figures for total productivity were obtained by combining the growth rates of labour productivity and capital productivity with weights of 0.6 in the case of the former and 0.4 in the case of the latter. The relationship approximates that between the wage fund, imputed capital charge and an allowance for depreciation of fixed assets.

cent (in the German Democratic Republic). The rise in Soviet industry was thus in the middle of this range (see text table).

Growth of industrial production, labour and labour productivity, 1976-1980

(*Indices: 1975 = 100*)

	Gross output	*Labour*	*Labour productivity*
Bulgaria	133.6	106.6	125.3
Czechoslovakia	125.2	102.8	121.7
German Democratic Republic	127.0	102.5	124.0
Hungary	118.0	94.6	125.0
Poland	124.4	101.6	120.6
Romania	157.4	119.1	133.7
Eastern Europe	130.1	..	..
Soviet Union	124.4	108.1	115.1
Eastern Europe and the Soviet Union	125.9	..	..

Sources: As for table 3.3.1.

Such a rise in the scale of industrial capacities and production was mainly a result of increased labour productivity. With the exception of Romania, Bulgaria and the Soviet Union, in all other countries the rise in *industrial employment* was below 3 per cent for the whole five-year period. In Hungary, the number of employed even declined (−5.4 per cent). If compared with the five-year period 1971-1975, Czechoslovakia and the German Democratic Republic slightly stepped up the relative rise in industrial employment which, however, remained at a low 0.6 and 0.5 per cent annually. The considerable drop in Hungary reflected an increasing shortage of manpower in the economy as a whole. The biggest change took place in Poland. Over a period of only five years, Polish industrialization was transformed from a labour-intensive development process (the increase in industrial employment during 1971-1975 was 14.6 per cent) into a zero manpower growth activity (in 1978 and 1979) which experienced an absolute decline in employment (−0.2 per cent) in 1980. During the whole period 1976-1980, the rise in employment exceeded

1 per cent only in 1977. In the two other east European countries, the rate of increase in industrial employment was also considerably reduced: in Bulgaria, the drop was relatively modest—from a five-year growth rate of slightly over 14 per cent during 1971-1975 down to 6.6 per cent in the 1976-1980 period. Romania, with a 19 per cent increase in industrial labour during 1976-1980, has remained virtually the only country where industrialization is based on massive inputs of labour—in spite of the deceleration in its rate of increase by comparison with the 36.6 per cent growth achieved in 1971-1975. In Soviet industry, employment rose by a slightly higher rate in the recent quinquennium (8.1 as compared with 7.8 per cent).

Divergences in the rise of *labour productivity* between the countries were smaller than in the growth rates of output and employment. Five east European countries stepped up industrial labour productivity at rates between the 20.6 per cent recorded in Poland and the 25.0 percentage growth in Hungary. With a rise of 33.7 per cent, Romania recorded the highest rate. In Soviet industry, labour productivity rose by slightly over 15 per cent.

A rise in *fixed assets* in industry during 1976-1980 indicates that industrialization in that period required a relatively slower growth in fixed assets than in the previous quinquennium, except in Bulgaria and Czechoslovakia. Nevertheless, the annual average rate of growth was higher everywhere than the related rise in industrial output (see chart 3.3.1). The spread of annual average rates of growth was between the low 5.7 per cent for the German Democratic Republic and 6.1 per cent in Czechoslovakia and the high 9.9 per cent in Romania and 9.5 per cent in Bulgaria. Soviet industrial fixed assets rose by 7.7 per cent annually on average (see text table).

The capital intensity of industrial expansion (i.e. fixed assets per employee), on the other hand, has been on the rise everywhere except in the German Democratic Republic. Measured in terms of fixed assets per employee in industry, it rose most quickly in Hungary (by 53.9 per cent as compared with the 1975 level), Poland (48.2 per cent) and Bulgaria (47.2 per cent). The German Democratic Republic has been at the bottom of the range, with a relative rise of 28.4 per cent (as against a 35.1 per cent increase in the previous five-year period). Next came Czechoslovakia, with a rise of 30.8 per cent (as against 27.4 per cent—the lowest rise in the region in 1971-1975).

Capital productivity in terms of the gross output-fixed assets ratio declined in all countries—though by a relatively small amount in Romania. Hungary, Romania and the Soviet Union recorded a decline in capital productivity even during 1971-1975, when it remained constant in Bulgaria; and in the following quinquennium the decline became much more apparent. The modest improvement in capital productivity during 1971-1975 in Czechoslovakia, the German Democratic Republic and Poland was also followed by rather pronounced declines in the second half of the decade (see section 4 on investment). In chart 3.3.2, this relationship has been demonstrated by capital output ratios (CORs are the inverse of capital productivity). The over-all trend, with the exceptions noted above, is for a modest increase in CORs which means a deterioration in capital productivity during 1971-1975; this however became much more pronounced during 1976-1980 and especially in 1979 and 1980.

By combining the growth rates of labour productivity and capital productivity, a synthetic indicator of total factor productivity has been obtained. The change was positive in all countries during both five-year periods under consideration, but the rate of advance was lower in 1976-1980, which indicates a relative decrease in total productivity in most countries; only in Romania did it remain unchanged.

Among industrial policies aiming at a rise in efficiency, an important place is given to the reduction of material costs. The consequent saving on material inputs augments the resources available to increase the wage fund and profitability of industrial enterprises and of industrial production as a whole. Systematic statistical data are not available but the size and direction of changes in the *material intensiveness* of industrial production can be shown with good reliability by reference to changes in the ratios of net output to gross industrial output.[139]

Changes in ratio of net output to gross output

(*Indices: 1975 = 100*)

Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
112.8	95.4	100.2	102.4	93.0	97.1	102.1

Sources: As for table 3.3.1.

Growth of fixed assets, fixed assets per employee and fixed assets-gross output ratio, 1976-1980

(*Indices: 1975 = 100*)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Fixed assets	157.7	134.5	131.6	143.6	152.1	160.9	144.9
Fixed assets per employee	147.2	130.8	128.4	153.9	148.2	136.7	133.8
Fixed assets-gross output ratio (COR) .	118.0	107.4	103.5	121.7	122.2	102.2	115.9

Sources: As for table 3.3.1.

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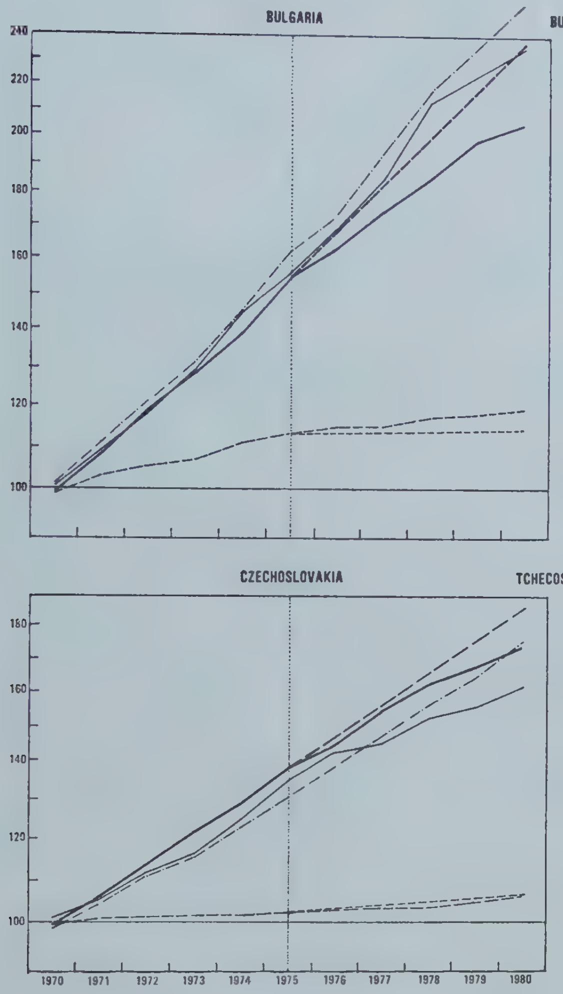
[139] Indices above 100 show the increasing share of net output in gross output and, consequently, the relative decline in the difference which mainly consists of material costs. Indices below 100 show the opposite trend, i.e. increasing material costs.

CHART 3.3.1

Industry: output and factor inputs

(Indices, 1968-1972 = 100)



——————— Gross output.

— — — — — Five-year plan target.

— · — · — Fixed assets: total.

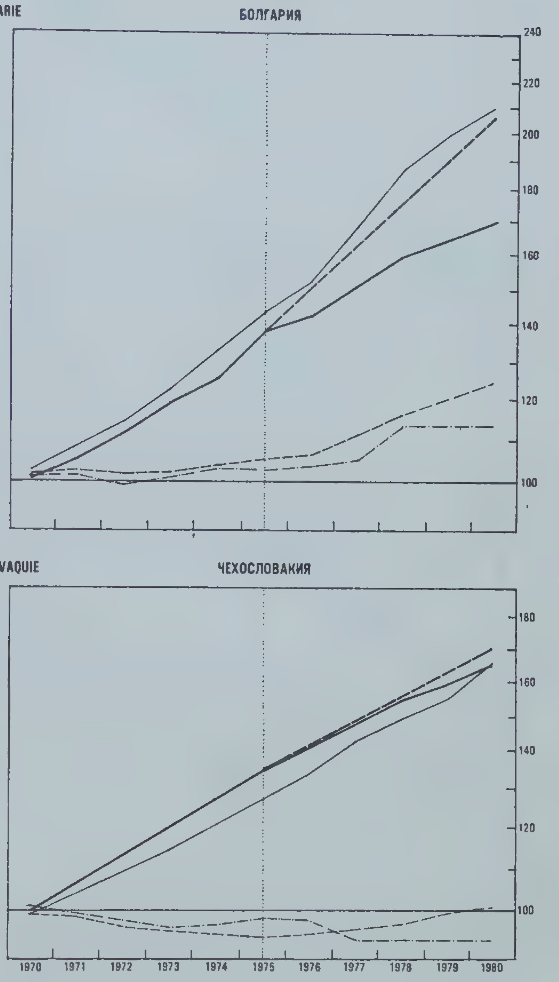
——————— Net output.

- - - - - - - - Employment.

CHART 3.3.2

Industry: efficiency indicators

(Indices, 1968-1972 = 100)



——————— Gross output per employes.

— — — — — Five-year plan target.

— · — · — Net output/gross output ratio.

——————— Fixed assets per employee.

- - - - - - - - Fixed assets/gross output ratio.

CHART 3.3.1 (*continued*)

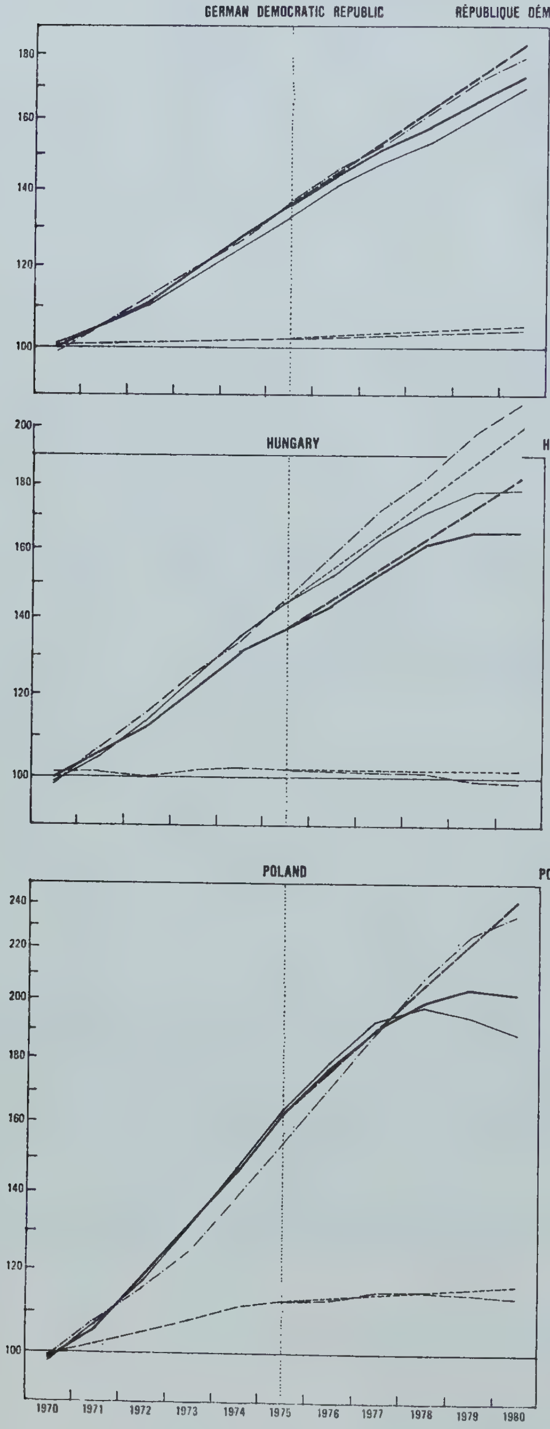


CHART 3.3.2 (*continued*)

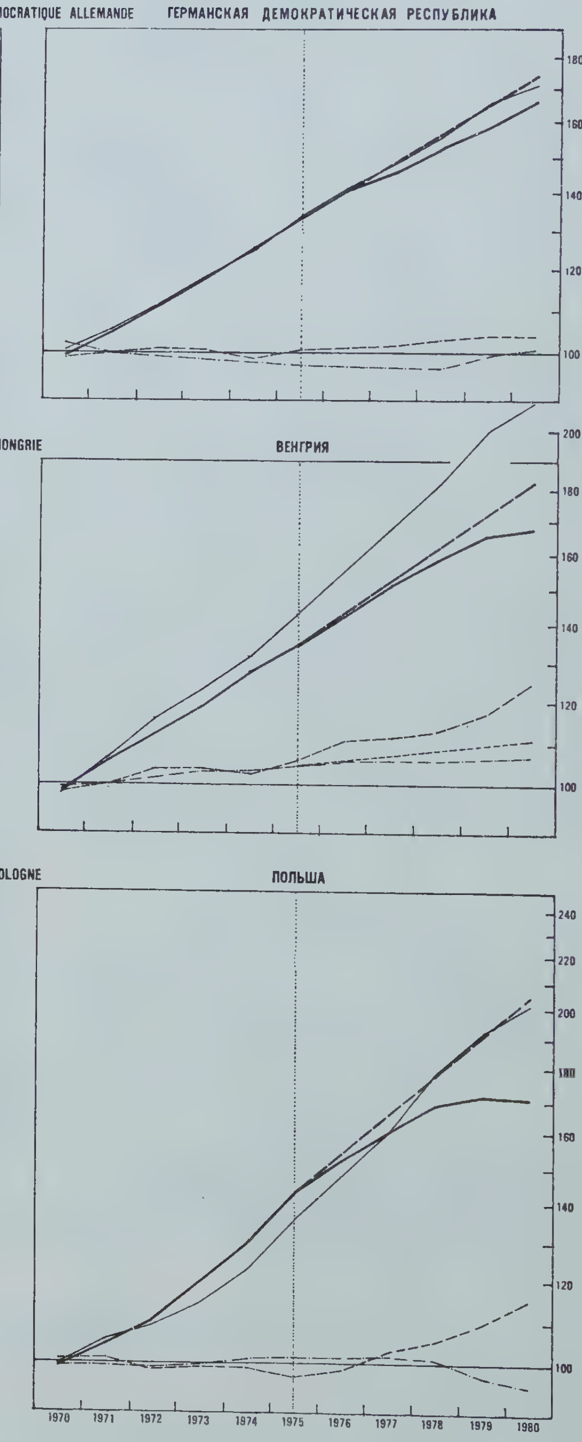


CHART 3.3.1 (*concluded*)

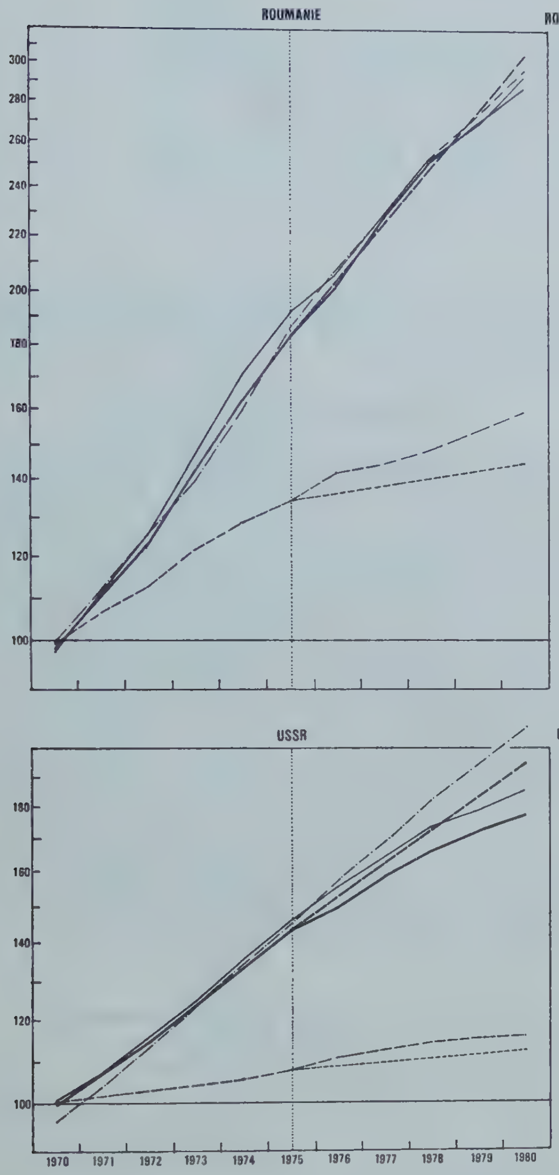
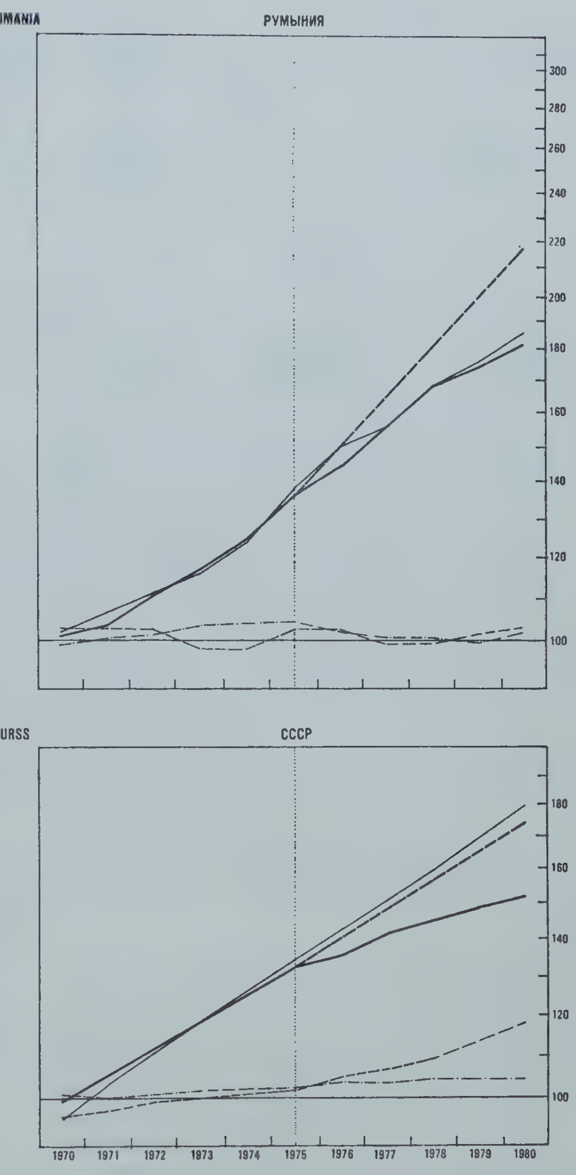


CHART 3.3.2 (*concluded*)



From country to country, trends were rather mixed during 1976-1980. In three countries—Czechoslovakia, Poland and Romania—the share of net material product declined in 1980 as compared with 1975, indicating that material intensiveness might have been on the rise. In the previous five-year peiod, the relative change for Poland and Romania in 1975 as compared with 1970 indicates a decreasing material intensiveness, which was very pronounced in the latter country (index = 105.4). In Hungary, the Soviet Union and especially in Bulgaria (index = 112.8) material intensiveness was also reduced. In the German Democratic Republic no real change occurred (100.2); compared with the previous five-year period this country reversed a rising trend in the ratio and began to achieve industrial growth with decreasing material intensiveness. The trend during the two five-year periods under consideration was also towards a further reduction of material intensiveness in Soviet and Bulgarian industry. In the latter country the change equalled 11 index points (index 112.8 as against 101.8 in the previous five-year period). In Hungarian industry, material intensiveness was reduced but to a smaller extent than in the previous five-year period (102.4 as against 105.6).

As a result of a more rapid rise in industrial production relative to the rest of the material sphere, the already high *share of industrial production* rose further in Bulgaria, the German Democratic Republic, Hungary and Romania in 1979. A slight decrease in the share took place in Czechoslovakia and the Soviet Union and a similar but somewhat smaller change also occurred in Poland (see text table).

Share of industrial net output in net material product
(*Percentage share: total NMP = 100*)

	Bulgaria	*Czecho-slovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1970	51.1	62.1	57.5	44.1	54.6	58.6	51.1
1975	52.1	65.7	59.1	46.2	59.6	57.1	52.6
1979	56.6	64.3	61.0	48.1	52.8	59.5	51.6

Source: CMEA Statistical Yearbook, 1980, p. 44.

The 1981 Plans provide for the acceleration of industrial production in all countries except Czechoslovakia, where the target rate of 2.9 per cent growth is 0.3 of a percentage point below the rate attained in 1980. In the longer term, an acceleration to 4 per cent growth annually has been envisaged during 1981-1985 in the preliminary proposals of the five-year plan. As in the previous period, priority in 1981 will be given to engineering (5.5 per cent increase) and chemicals (7 per cent). Growth in the light industries is planned to slow down by comparison with 1980. A modest acceleration in over-all growth of 0.3 percentage points is envisaged by the 1981 plan in the German Democratic Republic (target rate 5 per cent). A more pronounced 1.6 percentage point increase to 5.6 per cent (as compared with 4.0 per cent in 1980) has been provided in the Bulgarian annual plan for 1981. This figure is within the 5.4-6.2 per cent target range of growth rates for 1981-1985 stipulated in the Draft Directives for the eighth five-year plan issued at the end of January 1981. Priority branches are electrical power, ferrous metallurgy, engineering and chemicals, with target rates of 7-11 per cent. A slowdown is planned in the light and food-processing industries, where rises of 2.4 and 3.5 per cent respectively are envisaged.

Three other east European countries have planned a considerable recovery in industrial expansion for 1981. In Romania, the rate of 8.1 per cent growth is about 1.6 percentage points higher than in 1980, and is within the range provided for the 1981-1985 period. Recovery from negative growth is planned in Hungary, but the target rate of 3-3.5 per cent is slightly below the planned pace of industrial expansion for 1981-1985. As the final plan for 1981 has not yet been adopted in Poland, the rate of 1 per cent refers to the target proposed in the draft plan released in December 1980. Engineering and chemicals will lead industrial expansion in both Hungary and Poland. The Soviet Union has planned an acceleration of 0.5 percentage points in over-all growth (target rate 4.1 per cent). The plan provides for a slightly faster rise in the growth of consumer goods relative to output as a whole. The annual targets fall within the range of the five-year plan objectives (4.7-5.1 per cent growth) detailed in the Draft Directives for the eleventh five-year plan.

In none of the plans are there any provisions which would bring about marked changes in industrial employment. Hungary anticipates a further decline, and most other countries a modest increase of below 0.5 per cent. Only Romania has provided for a 1 percentage increase in the industrial labour force, which is, however, a markedly smaller rise than the 2.3 percentage increase in 1979. Thus, industrial labour productivity should climb, by and large, slightly below the rates of growth of output, except in Hungary, where it should exceed the planned rise in output.

(i) Developments in the Soviet Union

Gross industrial production in the Soviet Union increased at a rate of 3.6 per cent in 1980, a slight acceleration in relation to the preceding year (0.2 percentage points). The rise of output in producer goods industry branches was only slightly larger in percentage terms than that of the consumer goods sector, reflecting the increasing attention paid to the production of consumer goods. Industrial expansion slackened as compared with 1979, but the slowdown was more pronounced in the production of producer goods; the spread between their relative rise was reduced from 2.5, 0.7 and 1.3 percentage points in the years 1976-1978 to only 0.2 of a percentage point in 1979 and 1980. The plan for 1981 envisages higher rates of growth of consumer goods production for the first time in a long period (see text table). This is also the policy option retained in the draft guidelines for the five-year plan period 1981-1985, which stipulated a 27-29 per cent increase over the five years in industrial consumer goods as against a 26-28 per cent increase in producer goods.

Soviet Union: growth of gross industrial production by type of goods
(*Annual percentage change*)

	1976	*1977*	*1978*	*1979*	*1980*	*Plan 1981*
Producer goods	5.5	5.9	5.3	3.5	3.6	4.1
Consumer goods	3.0	5.2	4.0	3.3	3.4	4.2

Sources: As for table 3.3.1; annual plans and plan-fulfilment reports.

The acceleration in industrial growth was widespread in the individual *branches* in 1980. The greatest step-up was in the growth of chemicals—from 2.6 per cent in 1979 to 6 per cent in 1980. A recovery from declining performance in 1979 took place in the wood and wood-processing industries, and a marked but more modest one in construction materials. Electricity and fuel output rose by 5 per cent. Performance in engineering was marked by a high 6 per cent rate of expansion, but it was the lowest percentage increment in this branch recorded during 1976-1980. Light industries, with a 3 per cent increase in 1980, performed somewhat better than in the preceding year. The food-processing industries recorded a slight decline of −0.3 per cent (see table 3.3.3).

TABLE 3.3.3

Gross output by major branches

(*Annual percentage change*)

	Electricity and heating	*Fuel*	*Ferrous metallurgy*	*Non-ferrous metallurgy*	*Engineering and metal working*	*Chemicals and rubber*	*Construction materials*	*Glass and china*	*Wood and wood processing*	*Pulp and paper*	*Textiles*	*Clothing*	*Leather and fur*	*Food processing*
Bulgaria														
1976	9.0	0.3	13.7	..	10.7	4.9	8.0	8.5	4.3	2.0	5.3	2.2	0.5	10.8
1977	8.2	6.3	6.3	..	15.0	12.4	7.8	6.9	3.2	3.9	4.6	1.4	3.0	−1.5
1978	6.6	3.9	4.6	..	11.0	10.0	10.4	6.0	1.0	6.0	6.1	2.2	0.0	3.2
1979	5.3	11.1	1.9	..	5.5	9.1	7.0	6.9	2.6	2.4	5.4	1.9	0.3	5.6
1980	9.7	5.6	..	..	7.3	8.9	..	..	..	..		..		..
Plan 1981	7.2	..	10.1	..	8.1	11.0	..	..	..	..		2.4		3.5
Czechoslovakia		[a]				[b]								
1976	5.9	1.2	3.9		8.4	9.0	7.2	7.4	7.3	6.9	1.1	4.1	3.5	−0.6
1977	6.1	0.6	2.9		6.9	6.7	4.3	4.1	6.0	4.1	3.5	3.7	3.1	6.4
1978	4.6	2.0	3.9		6.5	5.9	6.0	3.5	6.3	3.3	4.4	3.9	3.1	3.9
1979	−11.1	1.3	2.0		6.6	2.9	3.0	4.6	5.0	2.8	3.9	4.3	2.8	2.0
1980	1.7		1.2		4.6	2.7	4.4	3.1	4.9	3.0	3.8	3.3	2.8	1.7
Plan 1981	2.1		3.0		5.5	7.0	3.2	..	4.4	..		2.5		1.2
German Democratic Republic														
1976	8.7	4.3	6.5	4.4	7.3	6.7	5.0	7.8	6.5	5.5	5.4	4.0	7.5	3.1
1977	4.3	3.6	4.0	4.1	6.1	4.3	4.1	4.6	5.5	3.7	3.7	0.8	4.8	3.0
1978	7.0	2.2	3.3	4.7	6.3	6.0	3.9	5.7	5.8	5.7	3.6	3.2	1.2	2.2
1979	6.4	2.9	2.5	1.2	7.2	4.0	−0.6	4.7	3.1	3.4	2.7	4.4	4.6	2.8
1980	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plan 1981	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungary		[c]												
1976	7.6	0.2	3.6		5.5	10.8	3.4	..	5.2	5.1	3.7	1.2	−1.6	1.4
1977	7.6	3.8	4.2		6.9	6.9	5.8	..	3.0	8.2	3.4	0.2	4.2	9.9
1978	10.1	3.2	2.7		6.0	10.7	6.8	..	7.3	4.3	0.1	1.4	3.9	0.4
1979	1.3	0.9	1.9		3.7	6.1	3.9	..	3.2	2.6	−0.6	1.4	−4.5	2.6
1980	2.2	−3.1	−4.6		−4.8	−0.1	1.3	..	−1.3[d]	0.2[d]		—		1.9
Plan 1981	..	..	1.7		7.9	4.0	..	..	..	..	..	..	..	..

TABLE 3.3.3 (*continued*)

	Electricity and heating	*Fuel*	*Ferrous metallurgy*	*Non-ferrous metallurgy*	*Engineering and metal working*	*Chemicals and rubber*	*Construction materials*	*Glass and china*	*Wood and wood processing*	*Pulp and paper*	*Textiles*	*Clothing*	*Leather and fur*	*Food processing*
Poland														
1976	7.6	6.7	4.2	7.4	13.5	10.8	5.8	14.0	11.5	8.7	9.0	8.9	6.9	5.2
1977	5.0	4.0	5.6	4.7	10.2	4.4	4.1	12.8	9.7	5.3	6.0	5.6	2.5	3.3
1978	7.1	3.0	6.4	6.1	5.8	3.9	2.1	9.5	5.1	−1.2	2.6	2.3	4.7	4.4
1979	2.1	2.2	−0.4	0.1	5.7	2.3	−4.6	8.5	−3.9	−7.4	−1.1	−1.5	3.6	2.0
1980[d]	4.6		..	..	1.5	6.1	3.7		5.7		4.8			5.2
Plan 1981	..		..	..	..	..	..		..		..			..
Romania														
1976	9.2	7.3	11.5	7.6	12.2	16.1	14.3	7.6	4.5	9.7	16.0	11.0	10.0	9.5
1977	4.3	4.9	15.9	5.4	15.2	13.9	16.5	10.4	10.0	12.3	12.0	8.0	11.0	11.5
1978	6.1	4.4	8.5	6.2	14.7	10.6	15.7	11.7	7.7	4.8	8.5	6.6	7.4	0.8
1979	1.7	0.8	8.6	3.3	11.5	1.4	12.9	7.5	4.9	3.9	8.6	8.6	8.4	7.3
1980	2.3	2.0	0.5	6.5	9.6	6.7	6.1	..	4.3	..	..	..	..	1.4
Plan 1981	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Soviet Union														
1976	7.8	3.8	4.7	2.0[e]	9.2	7.9	3.5	8.5	2.0	5.0	3.2	4.0	3.3	−1.5
1977	3.4	3.8	2.4	2.0	8.9	6.5	2.7	8.7	2.2	5.0	2.3	4.0	3.2	4.6
1978	5.0	3.0	2.8	0.9	9.0	6.0	2.7	5.1	1.9		3.8	4.5	4.6	1.9
1979	3.6	1.8	0.0	0.1	7.7	2.6	−0.7	4.8	−0.9		0.9	4.3	2.7	1.9
1980	5.0	2.0	0.6		6.0	6.0	0.9	..	2.0		3.0			−0.3
Plan 1981	3.5	..	..		6.1	5.0	..	..	..		4.3			5.1

Sources: As for table 3.3.1.

[a] Coal mining and processing.

[b] Including oil refining.

[c] Mining.

[d] 10 months. In the case of Poland: sales of products in socialized industry in current sales prices.

[e] Extraction of oil and natural gas.

TABLE 3.3.4

Soviet Union: output of some major industrial products

(*Physical units*)

	1976	*1977*	*1978*	*1979*	*Plan 1980*	*1980*	*Plan 1981*
Electricity (*billions of kWh*)	1 111.6	1 150.1	1 201.9	1 238.0	1 295.0	1 295.0	1 335.0
Coal (*millions of tons*)	711.5	722.1	723.6	718.7	745.0	716.0	738.0
Crude oil (*millions of tons*)	519.7	545.8	571.5	585.6	606.0	603.0	610.0
Natural gas (*billions of m³*)	321.0	346.0	372.2	406.6	435.0	435.0	458.0
Steel (*millions of tons*)	144.8	146.7	151.4	149.1	157.0	148.0	..
Finished steel (*millions of tons*)	101.4	102.1	105.4	103.2	109.0	103.0	109.2
Steel pipes (*millions of tons*)	16.81	17.02	17.55	18.2	18.5	18.2	18.5
Electric power generators (*thousands of MW*)	16.6	17.9	18.2	17.0	..	..	..
Turbines (*thousands of MW*)	19.6	19.0	18.3	20.0	..	20.3	..
Motor cars (*thousands*)	2 025	2 088	2 151	2 173	..	2 199	..
of which:							
Passenger	1 239	1 280	1 312	1 314	..	1 327	..
Trucks	716	734	762	780	..	787	..
Buses	70.1	74.6	77.4	79.2	..	..	..
Tractors (*thousands*)	562	564	576	577	..	..	..
Mineral fertilizers [a] (*millions of tons*)	92.2	96.8	98.0	94.5	..	104	113.8
Plastic and resins (*thousands of tons*)	3 058	3 309	3 516	3 478	..	3 600	4 300
Synthetics and artificial fibres (*thousands of tons*)	1 020	1 088	1 131	1 100	..	1 200	1 300
Cement (*millions of tons*)	124.2	127.1	127.0	123.0	..	125	128.5
Commercial timber (*millions of m³*)	302.1	296.0	283.6	273.0	..	275	..
Pulp (*thousands of tons*)	7 024	7 448	7 581	..	..	..	..
Paper and cardboard (*thousands of tons*)	8 916	9 064	9 236	8 729	9 500	5 300 [c]	..
Fabrics (*billions of m²*)	10.28	10.41	10.65	10.66	..	10.7	..
Meat [b] (*thousands of tons*)	8 368	9 118	9 581	9 582	..	9 335 *	..
Sugar (*millions of tons*)	9.25	12.04	12.21	10.65	..	10.1	..

Sources: As for table 3.3.1. [a] Conventional units. [b] Industrially processed. [c] Paper only.

In the *energy* sector, the output of natural gas rose rapidly by 7 per cent. Output of crude oil achieved 603 million tons, i.e. 3 per cent more than in 1979 (table 3.3.4). The decelerating trend in coal output since 1978 was not reversed. A negative rate of 0.3 per cent in 1980 is associated with coal output of 716 million tons. Following the completion of power stations in 1979 and 1980, electricity generated rose by 5 per cent in accordance with the plan target. The relative rise of aggregate primary energy production [140] in 1980 can be estimated at around 3 per cent. The plan for 1981 provides for an increase in power generation of 40 billion kwh, and also increments of 22 million tons of coal, 7 million tons of oil and 23 billion cu.m of gas.

In *ferrous metallurgy*, output of raw and finished steel declined somewhat by comparison with 1979. Steel pipe production remained at the 1979 level. It has been reported that the working up of new plants to full capacity operation was lagging behind the plan. Modernization and structural changes in the production assortment progressed more slowly than planned. The plan for 1981 stresses the necessity of speeding up the reconstruction of key capacities and provides for measures to decrease metal consumption per unit of output. Special attention is paid to the programme of technological reconstruction and re-equipment, and financial resources for investment are 11 per cent higher than in the 1979 plan.[141]

Within *engineering and metal-working* (which recorded a 6 per cent rate of growth in 1980) there is a wide spread of rates of growth by sub-branches (see text table overleaf). This reflects two sets of factors—deficiencies in supplies of the necessary inputs, and also the difficulties of modernizing equipment and introducing technological innovation; this is not progressing satisfactorily according to many sources.

Heavy industry and transport machinery recovered from their low performance in 1979. But the percentage growth in machinery and equipment for the power indus-

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[140] Coal, oil, gas and hydro-electricity excluding peat, oil, shale and wood.

[141] The policy of qualitative improvement in the iron and steel industry was stressed by L. Y. Brezhnev in his speech to the plenary session of the Central Committee of the CPSU on 27 November 1979: "The results show the main orientation for future development in the iron and steel industry—namely that at the present level of production quantitative increases are not as important as qualitative improvements and the broadening of the product range." *Kommunist*, No. 17, pp. 6-8. See also: Economic Commission for Europe: *The steel market in 1979*, ECE/Steel/29, United Nations, New York, 1980, p. 25.

Soviet Union: output of the engineering and metal-working industries
(Annual percentage change)

Output by ministry	*1978*	*1979*	*1980*
Heavy industry and transport industry	6.0	0.8	3.0
Machinery and equipment for power industry	5.0	4.0	0.9
Equipment for construction, road-building	3.0	4.0	2.0
Machine building for chemical and petroleum industries	6.0	6.0	5.0
Machine-tool industry	9.0	7.0	6.0
Motor-vehicle industry	9.0	7.0	5.0
Tractors and farm machine building	6.0	4.0	3.0
Machine building for light industry, food industry and household appliances	6.0	4.0	5.0
Electrical equipment industry	5.0	3.0	4.0
Instrument-making, automation systems and control systems	10.0	9.0	8.0
Machinery for livestock breeding and fodder production	9.0	7.0	4.0

Source: National statistics and plan-fulfilment reports.

try—one of the priority sub-branches—fell sharply, the 0.9 per cent rate recorded being the lowest in the entire engineering complex. In most sub-branches, growth rates were lower in 1980 than in the previous year, which resulted from the already mentioned slowdown in the expansion of engineering output which had started in 1979.

Similar tendencies can be seen with reference to the output of selected product categories (see following text table).

Soviet Union: output of selected categories of products in engineering and metal-working industry
(Annual percentage change)

	1978	*1979*	*1980*
Equipment for chemical industries	6.1	4.2	−1.0
Equipment for light industries	7.0	5.1	3.0
Equipment for food processing	2.4		
Automation systems	12.1	11.0	10.0
Computers and computer parts	21.1	14.7	14.0
Metal-cutting machines	9.1	4.9	5.0
Forging and pressing machines	9.3	6.7	4.0
Agricultural machinery	8.0	4.2	3.0

Source: National statistics and plan-fulfilment reports.

In the *chemical industry*, new capacities were brought into operation in 1980. They helped recovery from a relatively weak performance in 1979 (2.6 per cent rate of growth). Within the 6 per cent increment for the branch as a whole, the output of mineral fertilizers rose by 10 per cent and for other priority items such as plastics and resins, as well as synthetics and artificial fibres, by 3.5 per cent and 9.1 per cent respectively following virtually zero growth in 1979.

Modest progress has been reported in the *wood-working* and *paper industries* where output grew at a rate of 2 per cent. The increase in the production of commercial timber was less than 1 per cent. In most sub-branches insufficient utilization of existing capacities and delays in investment gestation periods were reported on several occasions.

Output of *light industry* increased by 3 per cent. Production of fabrics remained unchanged. The value of ready-to-wear clothing rose by 5 per cent. For other consumer goods such as furniture, glass and china, growth rates of 5-9 per cent were achieved. The highest (25 per cent) rate of growth was achieved in the production of colour television sets. Total production of "cultural and amenity goods" rose by 8 per cent, the best performance seen during 1976-1980.

Output of cultural and amenity goods [a]
(Annual percentage change)

1976	*1977*	*1978*	*1979*	*1980*
7.2	7.6	7.6	5.0	8.0

Sources: As for table 3.3.1.

[a] All consumer durables and household goods excluding passenger cars.

The *food industry* in 1980 suffered from the weak performance of agricultural output in 1979. Total output declined slightly (−0.3 per cent) as compared with the previous year. Important basic foodstuff products such as meat, plant and animal fats and sugar were below 1979 production levels. Output of some specific items decreased by 2-6 per cent.

Concerning developments in raising the *quality* of output, further progress was reported. Output of industrial goods with the State sign of highest quality increased by 16 per cent. The number of articles bearing the quality mark doubled to 88,000 during 1976-1980, and a new system for attesting the quality of industrial goods came into effect on 1 January 1981. In 1980, 3,500 new products were put into mass production and a total of 1,800 obsolete items were withdrawn.

In the *Byelorussian SSR* industrial production continued to rise rapidly, but the rate of 6 per cent was below the rates achieved in 1976-1979. Labour productivity increased by 4.1 per cent, which indicates that industrial employment rose by more than average for the country as a whole—by 1.8 per cent in the first case (compared with 1 per cent for the whole Soviet Union) in 1980. However, the deceleration of industrial employment growth in 1980 in relation to the previous year was very pronounced. The chemical and petrochemical industry expanded rapidly—by 12 per cent following the 9 per cent increase in 1979. Among sub-branches of engineering, output of instrument-making, automation and control systems, as well as machinery for livestock breeding and fodder production, grew at rates of 10 per cent. Similar rates of growth were reported for machine building and metal-working. A considerable slowdown was registered in the fuel industry, where the growth rate fell from 15 per cent in 1979 to 2 per cent in 1980. Energy output increased by 4 per cent. Light industry expanded at a 4 per cent rate, nearly the same as in 1979, but the growth rate was negative (−2 per cent) for the food industry.

The 1981 target for industrial growth indicates that industry in this republic is going through a period during which reconstruction and modernization are taking place; the draft guidelines for the five-year plan 1981-1985 provide for a 4.7 per cent average annual growth of the republic's industry. Thus the slowdown envisaged for 1981 should be of a short-term character, with higher target rates planned thereafter.

Industrial production in the *Ukrainian SSR* rose during 1980 by 2.2 per cent, or 1.4 percentage points below the rate for the country as a whole. The outcome in 1980 reflects weak performances in metallurgy, construction materials and food processing; in all of them output fell below the absolute 1979 level. Production of raw materials, semi-finished and finished goods also fell short of plans, and the same was true for coal, steel, mineral fertilizers and meat. Good results were achieved in the chemical and petrochemical branch, and in engineering and metal-working, where output increased by 5 and 6 per cent respectively.

Labour productivity in industry rose by only 1.1 per cent. It contributed only 50 per cent to the rise of industrial output; this was much lower than the corresponding shares in the Byelorussian SSR (around 68 per cent) or for the Soviet economy as a whole (over 72 per cent). The contribution of labour productivity changes to the rise in output in 1980 was higher than in previous years of the 1976-1980 period, but it was below 60 per cent in most years. This indicates not only a slow rise in labour productivity, but also the high labour intensity of the Ukrainian industry. The slowdown in industrial employment has not been compensated by a step up in the percentage rise in labour productivity; indeed industrial labour productivity since 1977 decelerated at steeper rates than employment. The plan for 1981 envisages a speed-up of industrial expansion to a moderate 3.5 per cent rate. The draft guidelines for the republic's five-year plan for 1981-1985 provide for a new orientation in industrial development policy, and an acceleration of industrial growth has been targeted.

(ii) Developments in eastern Europe

Bulgaria. Gross industrial production slowed down markedly compared with previous years. The 4 per cent rate of growth in 1980 was 1.4 percentage points below the 1979 rate and 2.9 percentage points below that in 1978. The main reasons for the slowdown were stated to have been delays in commissioning plant in some large projects in heavy engineering and also in completing the reconstruction of plant in ferrous metallurgy; supply difficulties; and a slowdown in labour productivity growth. In the agriculture-related branches, a decline in agricultural gross output also probably had a negative influence. Data on the performance of industrial branches in 1980 are only available on the basis of performance by industrial ministries. The ministries of energy, chemical industry and electronics expanded output at rates exceeding 8 per cent. Only the National Agro-Industrial Union recorded a decline (−0.8 per cent). Other ministries recorded below-average growth rates compared with total industrial output (see text table).

Bulgaria: Changes of gross production in selected ministries
(*Annual percentage change*)

Ministry of energy	9.6
Ministry of chemical industry	9.7
Ministry of machine building	4.5
Ministry of electronics and engineering	8.1
National Agro-Industrial Union	−0.8
Ministry for construction and building materials	3.3
Ministry for metallurgy and mineral resources	2.4

Source: Plan-fulfilment report 1980.

Data on industrial employment indicate a steep deceleration in the growth of employment—from a 1.7 per cent rise in 1978 down to 0.3 per cent in 1980. The slowdown has not been compensated by changes in labour productivity, which also followed a falling trend and declined from a 6.6 per cent rate of growth in 1975 to 3.7 per cent in 1980. The plan for 1981 envisages an acceleration at a rate which should fully make good the slowdown in 1980. The target rate of 5.6 per cent is within the range of 5.4-6.2 per cent rise laid down in the guidelines submitted to the Twelfth Congress of the Bulgarian Communist Party relating to the five-year plan for 1981-1985.

The *energy and fuel* branch developed rapidly. Coal production rose by 6.9 per cent and electricity generation by 7.3 per cent. At the end of 1980 a new block was put into operation at the nuclear power station in Kozloduy. In addition to the two already operating thermal power stations of 1,100 MW in the Maritsa-East lignite field, a new complex of three stations with a total capacity of 840 MW will be built in Maritsa-East in 1981.

In the *chemical industry*, soda production decreased by 1.3 per cent, but nitrogen fertiliser output and plastics production grew at 7.9 and 37.3 per cent respectively. The over-all rise in output of the chemistry branch was around 9 per cent in 1980, and a target rate of 11 per cent has been set for 1981.

In engineering and metal-working, the 7.3 per cent rate indicates a recovery from the low rate of 5.5 per cent achieved in 1979, but the two-digit expansion rates recorded during 1976-1978 are far from being attained. The target rate for 1981 is slightly higher than 8 per cent. The high priority given to the engineering branch in development policies is illustrated by the 11 per cent growth in investment by this branch in 1980. Engineering products are important export items, and exports of machinery and equipment rose about 16 per cent in 1980. For building materials, data are available only for the production of cement, which declined by 0.8 per cent in 1980. In the 1981 plan the highest priority is given to ferrous metallurgy. It seems that the recent stage of modernization and reconstruction of the industry has been largely terminated, and the target rate for 1981 has been set at a 10.1 per cent increase.

Czechoslovakia. Gross industrial production increased by 3.2 per cent in 1980, a rate which reflected a further deceleration of output growth. Difficulties in energy supplies which affected the performance of the whole national economy in 1979 continued in 1980 as well, but were a great deal less acute. The main reason for the decelerating trend in industrial expansion in Czechoslovakia was a slowdown in labour productivity. This started after 1977, in which year the growth rate amounted to 5 per cent. In 1980, just half that rate was reported. Industrial employment in Czechoslovakia has increased at the modest and stable rate of around 0.7 per cent rate during the whole of the 1976-1980 period. The plan for 1981 envisages a marked decrease in the rate of growth of industrial employment (to around 0.3-0.4 per cent), which implies the necessity of maintaining labour productivity growth at the same rate as in 1980. For gross output, the 1981 target rate has been set at 2.9 per cent, indicating that the continuation of a decelerating trend is envisaged by the plan. Apparently the year 1981 is expected to witness not only the full introduction of new economic and industrial mechanisms at enterprise level, but also a major reorganization and restructuring of industry in order to adapt it to new conditions. It has been reported that the proposed annual average rate of growth for industry during 1981-1985 will be around 4 per cent. This will entail a considerable step up in industrial productivity.

The level of coal production decreased further in 1980, and did not exceed the 1978 level. Electricity generation rose by 6.8 per cent. The recovery from a decline of 11 per cent in 1979 was only partially achieved, but it contributed greatly to the improvement in total energy balances.

Output in *metallurgy* increased only by 1.2 per cent due to limited resources of iron ore, raw materials and metallurgical coke. Special attention was paid to the problem of high metal consumption. It has been reported that Czechoslovakia has the highest iron and steel consumption per capita in the world, using around 30 per cent more metal per unit of industrial output than other developed countries. A 3 per cent target rate of output growth was stipulated in the 1981 plan for this branch.

The *chemical industry* developed its total production by 2.7 per cent in 1980; growth rates in the main product groups ranged between 2.2 per cent and 8.9 per cent. Production of chemical fibre rapidly increased. The biggest investment project of the chemical industry during the period 1976-1980—the second petrochemical complex at Litvinov—has been put into trial operation. Thus, the plan target rate of growth for the industry in 1981 has been stepped up to 7 per cent.

Output in the *engineering and metal-working* industries grew by 4.6 per cent in 1980. In heavy machine building the percentage rise was 3.7 per cent, and in machine tools—4.8 per cent. The fastest growth was recorded for the output of microelectronic circuits, with a 51.9 increase; there were rapid advances in the output of data processing equipment—at a rate of 11.5 per cent; earth-moving and construction machinery (which grew at the same rate); while the manufacture of equipment for nuclear power stations increased by 8.4 per cent. In the reorganization of industry in Czechoslovakia, a key strategic role has been given to engineering. The directives provide for improvements in the technical level of engineering products to advanced world standards and for the promotion of export capacities. Reference was made to the fact that the participation of Czechoslovakia in world trade in engineering products has consistently fallen—from 2.78 per cent in 1965 to only 1.5 per cent in recent years. The plan target for 1981 envisages a 5.5 per cent rate of growth in the output of engineering as a whole—a slight acceleration by comparison with 1980.

The building materials industry expanded at a rate of 4.4 per cent. In light industry a growth rate of 3.8 per cent was recorded. A further deceleration of growth was registered by the food industry, where output grew by only 1.7 per cent.

The German Democratic Republic. Industrial output measured in terms of "industrial commodity production" rose by 4.7 per cent in 1980, or by virtually the same percentage rates as in 1979. After a low 3.7 per cent rate of growth in 1978, industry in the German Democratic Republic increased by about 1 per cent faster than in 1978 in both years. Output growth has primarily resulted from increased labour productivity: indeed, in 1980 virtually the whole increase in industrial output must have been a result of rises in labour productivity as employment growth was virtually stagnant (0.1 per cent increase). The German Democratic Republic is not a country with ample labour resources. Though it managed to increase industrial employment by roughly 0.5 per cent in 1978 and 1979, increases of even 0.1-0.2 per cent seem unlikely in the longer term. Industrial growth will then depend entirely on changes in labour productivity.

The recoveries in 1979 and 1980, and the further acceleration (5 per cent target rate) scheduled for 1981 have been the result of industrial reorganization measures (the establishment of large industrial combines) and improvements simultaneously undertaken in managing resources—in particular the achievement of savings in all types of inputs and the promotion of industrial waste and secondary raw material recycling processes.

These measures resulted in a 5 per cent reduction in the consumption of main types of energy, raw materials and semi-manufactures per unit of output by comparison with the previous year (see text table).

Material consumption per 100 mark commodity production

(1970 = 100)

	1975	*1978*	*1979*	*Average annual percentage 1979:1975*
Electricity	88	81	78	−3.0
Important energy and other materials	87	79	75	−3.6
Rolled steel in metal manufacturing	81	68	64	−5.7

Source: The German Democratic Republic *Statistical Yearbook* 1980.

Some notion of the structural patterns of industrial growth in this country can be obtained from the plan figures by industrial ministries (see text table on next page; as in the previous year, no adequate data on actual performance in 1980 are available.)

Data show that the highest priority was given to the electrical engineering and electronics industries. For those industries the target rate for 1981 has been set at 8.9 per cent; this was exceeded only by the target rate for machine tools and metal-working machinery, another high priority sector. After 1979, targets provided for a slowdown in the coal and energy sector, with a rather low target rate of 3 per cent for 1981. An accelerated expansion is envisaged for 1981 in the light and food processing branches and in local industry. Electricity output rose by 2 per cent. Brown coal extraction increased by 0.9 per cent, bringing output up to 258 million tons. The extraction of approximately 262 million tons is planned in 1981.

German Democratic Republic: planned growth of commodity output by industrial ministries

(Annual percentage change)

Ministry	*1978*	*1979*	*1980*	*1981*
Coal and energy	4.8	4.9	4.4	3.0
Ore mining, metallurgy and potash	3.4	2.9	4.3	5.8
Chemicals	6.7	5.8	5.7	6.3
Electrotechnical engineering and electronics	8.7	8.7	7.3	8.9
Heavy engineering and complete installations	6.7	6.2	6.0	5.9
Machine tools and metal-working machinery	8.0	7.5	7.8	9.1
General and agricultural engineering and vehicles	6.7	7.9	7.1	7.8
Light industry	5.9	3.9	2.4	4.0
Glass and ceramics	6.9	5.0	6.2	5.1
Food processing and local industry	5.9	5.5	4.4	6.2
Total	5.0	5.8	5.4	5.8

Source: National plans.

In metallurgy, output in most product groups expanded at growth rates of between 1.4 and 4.5 per cent; steel pipe production grew by 14.1 per cent. The chemical industry increased its output of nitrogen fertilizer by 7.4 per cent and important basic chemical products, such as polyvinyl chloride and high-pressure polyethylene achieved growth rates of more than 30 per cent by comparison with 1979. In electronics, the output of semi-conductors and modules increased by 20.6 per cent and production of integrated circuits surpassed the 1979 level by 28.1 per cent. The three ministries of engineering and machine building stepped up output in most product groups by between 6 and 10 per cent. Special attention was paid to the production of goods designed for rationalization and exports. Textiles, clothing and furniture production rose at rates of 2-5 per cent. No data are available for the food industry; a slight increase (estimated at 1.5-2.0 per cent) may have taken place.

Hungary. Industrial policy in 1980 was in line with policies aiming to re-establish external and internal balances. Policies pursued in 1979 were continued. The restoration of the pace of industrial expansion (which hesitated in 1979 with a fall in the rate of growth from 4.9 per cent in 1978 to 3 per cent in 1979) was not a policy objective for 1980 and a very modest acceleration (of 0.5 percentage points) was envisaged. However, actual trends were somewhat less favourable, and a decline of 1.7 per cent in total output was recorded for the year. Data for 1980 show that output in most industrial branches fell compared with 1979. Only electricity, construction materials and some sub-branches in light industry recorded positive rates of change. Light industry on the whole stagnated.

Hungary was the only country in the region where industrial employment declined during the whole period 1976-1980. The decline started as early as 1975. Compared with that year, the level of industrial employment in 1980 was 5.4 per cent smaller—a loss of about 90,000 workers. Consequently, the whole increase in NMP depended on an increase in industrial labour productivity. In fact productivity did rise by rates exceeding those for output increases, but the annual percentage changes gradually decreased, following the decelerating trend in industrial expansion in terms of gross output. It has been reported that great attention has been paid to economizing on materials and energy, and that these measures have brought good results. On the other hand, because of reduced production, many industrial plants operated below full capacity with consequent adverse effects on plans to reduce unit costs. For 1981, an upturn in the pace of industrial expansion is envisaged at rates slightly below the plan target for 1980. The 1981 target (3.0-3.5 per cent) is apparently of a short-term character, as the rate of growth planned for the period 1981-1985 has been set between limits of 3.5-4.1 per cent. The declining trend in employment is expected to continue.

The reasons for such developments in industrial production are very similar to those in other east European countries: shortages in supplies of energy and some material inputs, the slow process of re-organization and modernization of plant which is closely associated with reduced availability of resources for investment, and also policy oriented to eliminate lines of production which yield low profitability or which are subsidized. From that point of view, Hungary's industry is passing through a transitional period, the length of which will depend essentially on developments in the economy as a whole. New measures and policy instruments—the so-called "economic regulators", in particular new producer prices—were introduced with a view to speeding up reconstruction, restructuring and modernization.

Despite some setbacks, the structure of industrial deliveries corresponded with plans. Deliveries for investment and consumption in 1980 decreased, while those for exports increased as compared with 1979 (see following text table).

Industrial deliveries in constant prices

(Annual percentage change)

	Total	*Domestic trade*	*Exports*	*Investment*	*Other purposes*
1978	4.7	4.7	2.6	16.3	4.9
1979	3.6	2.6	13.7	−0.5	−0.2
1980[a]	−2.1	3.4	2.6	−22.4	−5.5

Source: National statistics. [a] 10 months.

Poland. Industrial production declined by 1.3 per cent in terms of sales in 1980 as against the preceding year. After some recovery from difficulties in 1979 during the first half of 1980—in which the value of market production rose by 7 per cent in comparison with the corresponding period of 1979—a sharp decline in output took place during the second half of the year due to the social events leading to breaks in continuous work in almost all branches of industry. Production fell in August by 10 per cent, in September by 2 per cent and in October by more than 3 per cent compared with the same months of 1979. Breaks in coal and energy production and supply-induced chain reactions resulted in a steady worsening in industrial supply, which ultimately affected all sectors of the economy.

It has been reported that the normal rhythm of industrial performance had not been resumed by the end of the year under review. The above-mentioned events, which have had extremely deleterious effects on Polish industry, occurred in the period when internal and external imbalances were of such an intensity that the operation of the economy at normal capacity was not possible. The attempt in the first half of 1980 to reverse the steeply decelerating trend of industrial growth, which started at the beginning of the 1976-1980 period, was not successful.

Industrial gross output fell from a 12.6 per cent rate of growth in 1975 to 2.7 per cent in 1979. As early as 1975 it was evident that the period of industrialization based on ample labour reserves had come to an end. The percentage rise in industrial employment had already slackened from an annual average of 3.3 per cent in 1966-1970 to 2.6 per cent in the subsequent five-year period—and only 1.6 per cent in 1975. The five-year plan for 1976-1980 envisaged a further radical drop to an annual average of 0.7 per cent. In fact, the drop was much sharper (annual increases amounted to an average 0.3 per cent only). Indeed, if the exceptional increase in industrial employment in 1977 is excluded, in all other years of the five-year period 1976-1980 employment remained virtually flat with some tendency to decline. Thus, industrial expansion was completely dependent on changes in labour productivity.

Intensive industrialization in the first quinquennium of the 1970s based on massive imports of machinery and technological innovations, could not be continued in subsequent years. The investment resources allocated to industry were greatly reduced, to an even greater extent than for the economy as a whole. Within such reduced resources for industrial investment, capital expenditures in the energy and fuel complex and, though to a lesser extent, in the consumer goods branches, were singled out for priority. The structure of production, already distorted, was unbalanced even more. The supply of material inputs—home-produced and imported—was reduced in relative and sometimes in absolute terms. The adverse effects of these factors, and the modest results yielded by technical innovation policies combined with the resistance of existing institutional arrangements to any adaptation to new conditions resulted in a notable and steep deceleration in labour productivity. This can now be regarded as a synthetic indicator of the worsening imbalances and the low degree of adaptability of Polish industry.

Data on plans for future developments are not available. A 1 percentage point increase in industrial output was proposed in the draft plan for 1981 which had not been approved at the time of writing; it seems that the whole strategy of industrial development, as of economic development, was subjected to substantial revision, and had not yet reached a stage where the final options had been selected.

The greatest difficulties in 1980 occurred in energy—particularly in coal production—and in the engineering industries, where considerable shortfalls in deliveries for internal use and for export made themselves felt. Industrial sales [142] at current prices rose by 4.6 per cent in the first 10 months of 1980 (see text table). The data imply a decline in volume terms due to the rise in producer prices which can be estimated at something above 6 per cent.

Industrial sales by branches in current prices

(*Annual percentage change*)

	1978	*1979*	*Plan 1980*[a]	*1980*[b]
Total	8.3	3.8	3.0-4.2	4.6
Energy	5.0	2.1	3.6	−2.6
Metallurgy	6.6	0.7	3.3	−6.1
Engineering	11.2	5.5	5.1	1.5
Chemicals	7.6	3.7	3.5	6.1
Minerals and construction	6.6	−1.9	5.8	3.7
Wood/Paper	4.9	−3.4	6.3	5.7
Light	7.4	1.5	4.1	4.8
Food	8.9	7.1	3.8	5.2

Source: National statistics. [a] 1979 prices. [b] 10 months.

Output of coal fell by roughly 4 per cent as compared with 1979. Export deliveries were considerably reduced to both eastern and western countries. Some sources estimate that deliveries of 12.2 million tons contracted for export in 1980 were not fulfilled—compared with total contractual obligations of 40 million tons.[143] Supplies to domestic consumers were generally met but supply shortages raised difficulties for power stations and enterprises in metallurgy, the chemical industry and engineeering. Oil refining output declined by 3 per cent over 1979, but electricity supplies rose by 3.7 per cent. A small advance in crude steel production—an increase of 1.4 per cent—was also achieved, while rolled steel products remained 0.2 per cent below the level of 1979. Output of electrolytic copper, an important export product, increased by 6.4 per cent. Output of aluminium fell by 1.5 per cent and of cement by about 4 per cent. For fertilizers, a drop of 7.4 per cent was registered. The food

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[142] Sales figures differ from gross output figures on account of changes in the volume of inventories and work in progress. More important are the differences between indices which arise as a result of different systems of valuation. Recent changes in the comparable indices pertaining to industries in the socialist sector were as follows:

	1976	*1977*	*1978*	*1979*
Gross output	9.3	6.9	4.9	2.7
Sales	10.7	8.6	5.8	3.8

[143] Reduced coal production was reported in January 1981. The plan for January was 14.3 million tons, about 3 million tons less than in the same month of 1980. Coal exports were reduced by some 50,000 tons, supplies to power stations by 250,000 tons compared with December 1980, to domestic consumers by 150,000 tons and to industry by 310,000 tons. *Trybuna Ludu*, 31 January 1981.

industry suffered from insufficient deliveries due to agricultural production shortfalls. Meat production decreased by 4 per cent. The largest drop was in sugar production, where output in 1980 represented only 67.3 per cent of the 1979 level.

Romania. Industrial gross output rose by 6.5 per cent in 1980. This was the highest growth rate of any east European country, but was the lowest in the country's own industrial expansion record over the 1976-1980 period.

Developments in 1980 confirmed the decelerating trend which started after 1977. The slowdown was associated above all with a considerable decrease in the percentage rate of growth in industrial employment. The acceleration in industrial expansion during 1971-1975 as compared with the previous five-year period was largely due to massive additions to the industrial labour force. The annual average rate of 6.3 per cent growth during that period was 2 percentage points above the already high annual rate of 4.3 per cent recorded over the previous quinquennium. After a peak 7 per cent rate of increase in 1974, rates of growth started to slow down. The increase of 5.1 per cent in 1976 was the last occasion when growth exceeded 5 per cent. The slowdown was nevertheless less pronounced than envisaged by the 1976-1980 plan; a 3.2 per cent actual rate of growth was registered compared with the annual average range of 1.6-2.1 per cent expected. A further fall in percentage rates of increase in the industrial labour force is planned for 1981—to a rate of 1 per cent which is still markedly higher than in other east European countries.

Industrial labour productivity rose consistently at annual rates exceeding 6 per cent in all but the last two years, when it fell back to roughly 4 per cent. In a longer time perspective, Romania has been the country with the most intensive industrialization policy and performance, but the pace of advance had already begun to slow after 1974. As in other countries of the region, labour productivity did not rise enough to maintain Romania's historical rates of industrial expansion—which had exceeded 10 per cent. The slowdown in industrial labour productivity began in the 1971-1975 period, when the average annual rate of increase fell from 7.4 per cent in the previous five-year period. This deceleration was offset by massive additional employment, as noted above. The average annual 6.0 per cent increase in industrial productivity in 1976-1980 was only slightly lower, but since it was accompanied by a drop in the percentage growth rate of employment, there was some slackening in rates of industrial output expansion. The five-year average conceals sluggish performance in the two last years of the period by comparison with previous years. Policies laid down in the annual plans for 1978-1980 aimed to reverse the trend, but they did not give the expected results. The gap between the pace of actual and planned performance was markedly enlarged in 1980 as compared with 1978. The plan for 1981 has set a high, 8 per cent output growth target which is expected to be achieved mainly by an accelerated increase in labour productivity—to an annual average rate of 7 per cent.

Output of electricity, heating and fuel recovered slightly from weak performance in 1979, achieving growth rates of 2.3 and 2 per cent in 1980. This was due to an increase of 7.3 per cent in coal production. The declining trend in the level of crude oil extraction persisted; output was 0.7 million tons lower than in 1979. A very sharp drop in the percentage growth of output was reported in ferrous metallurgy. Steel production rose by only 2,100 tons, i.e. 2.1 per cent, and performance of the whole ferrous metallurgy branch grew at a rate of 0.5 per cent. Non-ferrous metallurgy developed fast thanks to an increase of 10.8 per cent in aluminium production. The rise in total branch output was doubled and achieved 6.5 per cent, though this should be compared with the two-digit rates recorded during 1976-1979. As in other countries, production of electro technical and electronic facilities increased at a high rate—by 27.7 per cent. Output of metal-working machines developed only slightly more slowly, achieving a growth rate of 21.7 per cent. On the other hand, the production of machinery and equipment for industry fell by 1.2 per cent. Output of chemicals and rubber surpassed the 1979 level by 5.3 percentage points, achieving a growth rate of 6.7 per cent. Increases in lorry, tractor and car production brought with it a 7.8 per cent rise in the output of tyres. Synthetic fibre output rose by 4.9 per cent and macro-molecule products by 12.2 per cent. In chemical fertilizers, the level of output in 1979 was not achieved, output declining by 2.8 per cent in 1980. Light industry as a whole increased production by 2.4 per cent, achieving growth rates of 6.1-8.5 per cent in such product groups as fabrics, knitwear and footwear. Output of the food industry rose by only 1.4 per cent, mainly due to a nearly 10 per cent fall in meat output by comparison with 1979.

4. INVESTMENT

(i) Investment trends in 1980 and plans for 1981-1985

Some important changes in structures, and more particularly, in the level of investments in the countries of the eastern region took place in 1980. Over-all investment outcomes for the five-year plan period which ended in 1980 are, in all cases, broadly in line with the objectives laid down. Investment growth, especially during the early years of the period, was generally more buoyant than foreseen, but several countries implemented restrictions towards the end of the quinquennium. In some cases these took the form of severe cutbacks in previous expenditure levels, and investment growth performance for the region as a whole was hence somewhat sluggish in 1980.

Four countries—Bulgaria, Czechoslovakia, Romania and the Soviet Union—planned upturns in investment growth rates for 1980 as compared with the previous year. However, while the targeted acceleration was substantial in Bulgaria—17 per cent—the objectives retained by the other three countries—between 2.4 and 4.9 per cent—were more modest. In Poland, the planned further reduction in absolute levels of investment expenditure was smaller—at 2.8 per cent—than the 7 per cent fall registered in 1979. A 4.5 per cent drop was also planned for Hungary, and in the German Democratic Republic investment was expected to be no more than maintained at the 1979 level.

According to preliminary estimates, actual performance in 1980 was more modest than planned in most countries (table 3.4.1). A strong, though slightly below plan, upturn was registered in Bulgaria, where the authorities put in hand a vigorous and largely successful programme to boost investment, make good past shortfalls, and hence bring aggregate performance during 1976-1980 up to a level corresponding with the five-year plan targets. In the German Democratic Republic, there was a 9 per cent upsurge above the previous year's level. This was considerably above original expectations, but most of the increase was due to a very large rise in the German Democratic Republic's investment in other socialist countries; these foreign investment allocations increased almost three-fold and accounted for 9 per cent of the country's total investment effort in 1980. In the other five countries, the investment levels attained were lower than planned. In Czechoslovakia, Romania and the Soviet Union, growth rates ranged between 1.2 and 3.1 per cent—half to two-thirds of the target rates. In Hungary the 7 per cent fall in expenditures was considerably bigger than the 4.5 per cent decline planned, and in Poland the actual drop was nearly four times larger than the 2.8 per cent cutback originally scheduled.

TABLE 3.4.1

Gross fixed capital formation, investment ratios and incremental capital-output ratios

Country and period	*Gross fixed capital formation*		*Ratio of gross fixed capital formation to net material product*	*Gross incremental capital-output ratio*
	Billions of national currency units	*Average annual percentage change*		
Bulgaria (based on constant 1979 prices)				
1976	5.38	0.6	36.4	5.6
1977	6.14	14.2	39.1	6.2
1978	6.18	0.6	37.3	6.7
1979	6.04	−2.3	34.2	5.2
Plan 1980	7.00	16.0	37.5	6.6
1980	6.80	12.7	36.4	6.4
Plan 1976-1980	6.15	4.7	35.3	4.6
1976-1980	6.11	4.5	36.6	5.9
Plan 1981	7.05	3.7	35.9	7.0
Czechoslovakia (based on constant 1977 prices)				
1976	132.3	4.4	33.6	8.2
1977	139.8	5.7	34.0	8.1
1978	145.5	4.1	34.0	8.3
1979	148.1	1.8	33.6	10.8
Plan 1980	151.7	2.4	33.2	9.0
1980	149.9	1.2	33.0	11.0
Plan 1976-1980	148.8	5.4	34.0	6.9
1976-1980	143.1	4.1	33.6	8.6
Plan 1981	149.9	—	32.1	11.5

TABLE 3.4.1 (*continued*)

Country and period	Gross fixed capital formation		Ratio of gross fixed capital formation to net material product	Gross incremental capital-output ratio
	Billions of national currency units	Average annual percentage change		
German Democratic Republic [a] (based on constant 1975 prices)				
1976	46.3	8.4	31.4	8.7
1977	49.4	6.7	31.8	6.1
1978	50.8	2.8	31.6	8.8
1979	51.2	0.8	30.7	8.1
Plan 1980	51.2	—	29.3	6.1
1980	56.0	9.4	32.2	7.7
Plan 1976-1980	48.4	4.2	29.3	5.9
1976-1980	50.7	5.7	31.5	7.7
Plan 1981	57.4*	2.5*	31.4*	6.3*
Hungary [b] (based on constant 1976 prices)				
1976	152.1	−0.3	36.0	12.0
1977	174.0	14.4	38.1	4.8
1978	182.7	5.0	38.4	9.1
1979	184.5	1.0	38.1	21.2
Plan 1980	176.2	−4.5	35.2	10.7
1980	171.6*	−7.0*	35.7*	−44.6*
1976-1980	162.4	2.1	33.5	6.0
1976-1980	173.0*	4.2*	37.3*	9.1*
Plan 1981	175.0*	−2.0*	35.5*	15.4*
Poland [c] (based on constant 1977 prices)				
1976	626.7	2.2	39.0	5.7
1977	653.6	4.3	38.8	7.8
1978	664.0	1.6	38.2	12.7
1979	617.6	−7.0	36.4	−15.8
Plan 1980	600.0	−2.8	34.8	21.8
1980	552.8*	−10.5*	33.9*	−8.5*
Plan 1976-1980	616.8*	0.2*	33.3*	4.7*
1976-1980	622.9*	0.5*	37.3*	10.7*
Plan 1981	462.8*	−16.3*	28.4*	..
Romania [d] (based on constant 1977 prices)				
1976	151.6	8.5	38.3	3.6
1977	169.3	11.7	39.2	4.4
1978	196.3	15.9	42.3	5.7
1979	204.4	4.1	41.5	6.7
Plan 1980	214.4	4.9	40.0	4.5
1980	210.8	3.1	41.8	16.7
Plan 1976-1980	203.9	12.8	41.0	3.7
1976-1980	186.5	9.8	40.7	4.9
Plan 1981	220.0	4.4	40.7	5.8
Soviet Union (based on constant 1969 prices)				
1976	118.0	4.5	29.7	5.0
1977	122.3	3.6	29.4	6.5
1978	129.7	6.1	29.7	5.8
1979	130.6	0.7	29.2	11.7
Plan 1980	135.3	3.6	29.0	7.3
1980	133.5	2.2	28.7	7.6
Plan 1976-1980	124.3	3.3	28.8	6.1
1976-1980	126.8	3.9	29.3	6.2
Plan 1981	140.6	5.3	29.2	8.6

Sources: National statistics; CMEA statistical year-books; plans and plan fulfilment reports.

Note: Unless otherwise stated, all data in tables in this section are in constant prices. In the above table, any minor discrepancies compared with official figures arise because of the use of a standard presentation to ensure comparability between countries. Average growth rates over five-year periods are calculated by computing total growth as the percentage change between the average level of investments over the five years and the last year of the preceding five-year period (in this case 1975). The resulting index is then reduced to an average annual compound growth rate. The same method has been adopted to calculate average annual NMP growth for the purpose of deriving ICORs above and in table 3.4.2.

[a] Figures include investments in other socialist countries as follows (million marks): 1976—1,095; 1977—1,672; 1978—1,700; 1979—1,200; 1980—4,900 (preliminary estimate).

[b] Socialist sector only. The estimate for Plan 1981 is based on a target figure of 183 billion forint in current prices and assumes a 4 per cent (recent trend) price rise after 1979.

[c] The estimate for 1980 is based on a 10.5 per cent decline reported for the socialist sector. The estimates for Plan 1981 are based on an anticipated decline in total investment of 90 billion zloty compared with 1980.

[d] Plan 1976-1980: as published in December, 1977.

Movements in the ratio of *gross fixed investment to net material product* (investment ratio) in 1980 indicate that in most countries of the region changes in total demand (in terms of NMP) were strongly affected by trends in the investment sector, though in some countries their influence was negative. Relatively strong aggregate demand in Bulgaria and the German Democratic Republic was led by dynamic investment performance, which resulted in substantially higher investment ratios in both countries. The ratio also rose in Romania, though both investment and total demand grew much less rapidly than in the two previous countries. Conversely, the sharp decline in investment ratios in both Hungary and Poland illustrates the considerable contribution of investment cutbacks to both countries' negative over-all growth performances in 1980. In Czechoslovakia and the Soviet Union, changes in investment were less marked than changes in total demand, investment ratios falling back slightly in both countries. Developments in 1980 have thus considerably reinforced trends away from previous relationships between capital formation and over-all growth in the eastern region. Whereas the investment sector has tended to be one of the leading components in total demand in past periods of rapid economic expansion, in recent years its role in promoting dynamic growth has weakened. Slower growth of investment relative to NMP was in fact written into the 1976-1980 plans of all countries but Czechoslovakia and Romania. As planned, investment grew faster than NMP in the two latter countries. Contrary to expectations, investment in 1976-1980 as a whole also grew faster than NMP in the German Democratic Republic and Hungary. But the expected trend became much more strongly apparent throughout the region in 1979-1980, the investment sector heading downward adjustments in demand growth in most countries—very noticeably in Hungary and Poland.

Movements of *incremental capital-output ratios* (ICORs), which measure the relationship between investment and growth in a given year, were strongly influenced in 1980 by sharp variations in the rates of change of NMP in a number of countries.[144] In Bulgaria, the German Democratic Republic and the Soviet Union, where fairly ambitious planned growth of NMP was achieved or fell short by only narrow margins, movements were small or downward. But ICORs rose very substantially in Hungary, Poland and Romania, and also—though somewhat less strongly—in Czechoslovakia. In general, developments in 1980 have failed to reverse the progressive and substantial upward trend in ICORs which has been a noticeable feature of all eastern countries without exception in the second half of the 1970s.

The preliminary estimates for 1980 reviewed above make possible a first global assessment of investment performance in relation to the objectives of the last five-year plan, which in all countries covered the 1976-1980 period.

With regard to the accomplishment of over-all *investment allocation* targets for the whole period, the degree of fulfilment in each country is as follows:

Ratio of actual to planned total investment expenditures, 1976-1980
(*Per cent*)

Bulgaria	99.3
Czechoslovakia	96.2
German Democratic Republic	104.8
Hungary	106.5
Poland	101.0
Romania	91.5
Soviet Union	102.0

Sources: As for table 3.4.1.

There were considerable differences in the timing and pattern of developments in the investment sector at global level in individual countries of the region during 1976-1980. These reflect divergent trends in the availability of investment goods and other resources; the pace of domestic and external adjustment processes in response to new developments; and differing degrees of vulnerability to adverse economic conditions. In the Soviet Union, abundant domestic supplies of fuel and raw materials have contributed to a relatively relaxed internal supply and external payments situation which—despite the growing importance of inter-regional co-operation—the other countries have not enjoyed. This has inevitably given the Soviet authorities room for manoeuvre in economic management which differentiates it from all other countries in the region—not least with regard to its policy towards the investment sector.

Hence, of the five countries in which investment allocation plans were fulfilled or overfulfilled, developments in the *Soviet Union* proceeded at relatively steady rates compared with the other countries (chart 3.4.1). Investment grew faster than planned in the last three years of the plan period, for which some deceleration in rates of increase had been originally foreseen. Though there was a slowdown in the pace of advances in 1979, the need was clearly accepted for somewhat higher levels of investment than were envisaged by the plan, but the attainment of NMP growth targets for the five years as a whole kept upward pressures on investment ratios within reasonable limits. The Soviet Union was thus unique among the countries of the eastern region in restricting the rise in the investment cost of growth to planned levels—though ICORs were on average still substantially above those recorded earlier in the decade.

In *Bulgaria*, investment plan targets were all but fulfilled. But the year-to-year rise in capital expenditure was very irregular; upsurges in 1977 and again in 1980 were probably related mainly to large apparent shortfalls in immediately preceding years. Individual year ICORs thus fluctuated wildly—but their average during 1976-1980 was still well above those in the earlier years of the decade.

In the *German Democratic Republic*, *Hungary* and *Poland*, investment plans were over-fulfilled, expenditures growing substantially faster than scheduled in the earlier years of the 1976-1980 period.

Restrictive action was taken in the German Democratic Republic in 1977 and the growth rate of investment fell sharply; virtually all of the nearly 5 per cent overfulfilment of the five-year plans was due to the sharp rise in investment abroad in 1980. Investment ratios and ICORs

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[144] In all countries, the ICOR is highly sensitive to short-term changes in production growth rates. Care should thus be taken to interpret year-to-year variations in ICORs within longer-term perspectives.

CHART 3.4.1

Changes in levels of NMP, gross fixed capital formation, and investment ratio

(*Indices, 1968-1972 = 100*)

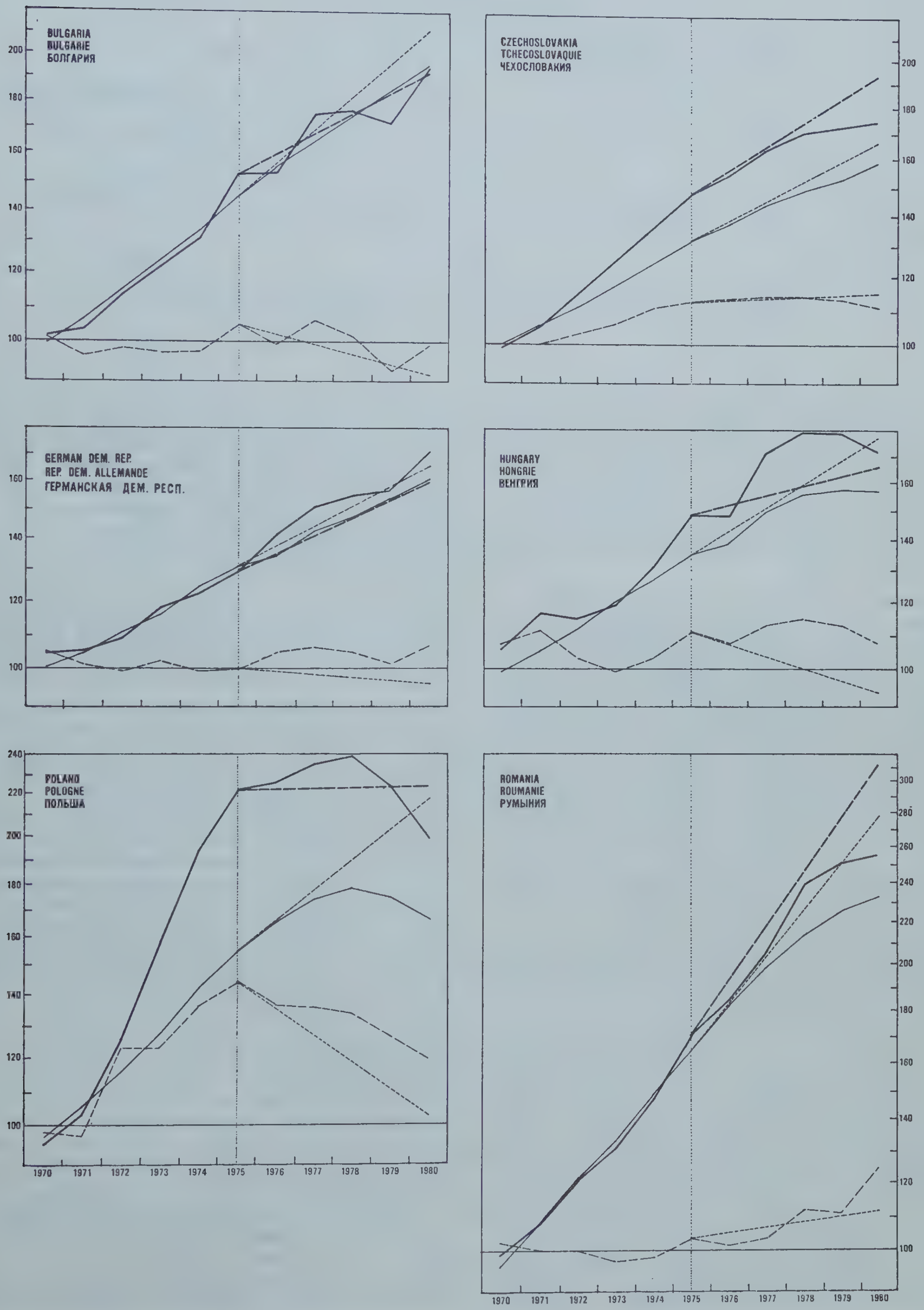
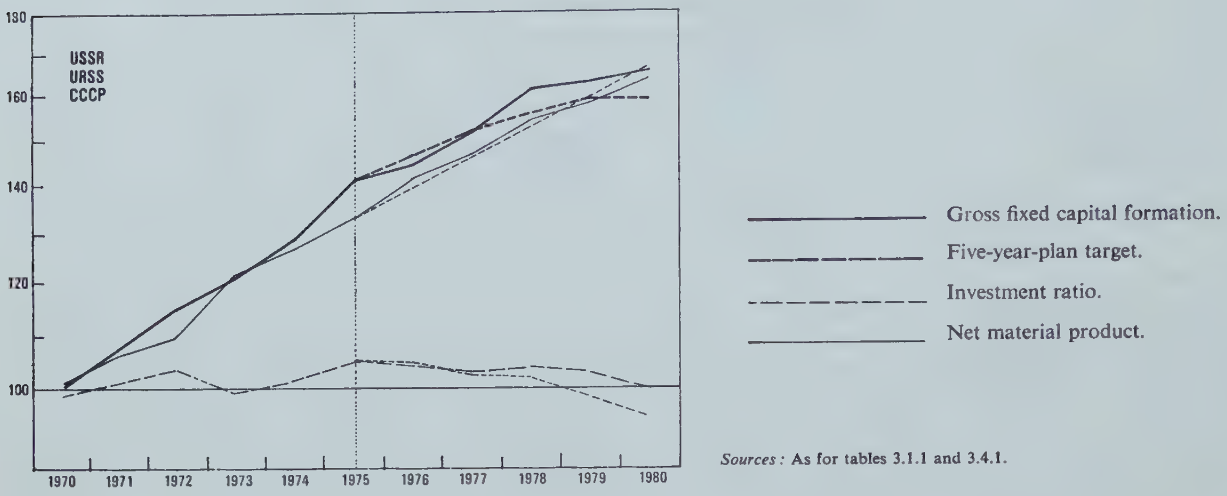


CHART 3.4.1 (*continued*)



Sources: As for tables 3.1.1 and 3.4.1.

were higher than those implied by the plans for 1976-1980, and this is still the case even when investment abroad is excluded from results for the five-year period. Over 1976-1980, ICORs were 40-50 per cent above 1971-1975 levels. Even if the large sums invested abroad in 1980 are deducted from total expenditures in that year, the ICOR for the year is still considerably above the average for 1971-1975—though the investment ratio falls to pre-1976 levels.

In Hungary and Poland, a similar unplanned investment buoyancy continued up to 1979—even though investment growth in Poland was relatively slow in two of the three initial years of the five-year plan period. Despite the very sharp recent cutbacks in both countries, culminating in large declines in the absolute level of investment in 1980 in Hungary, and in both 1979 and 1980 in Poland, aggregate expenditure plans for 1976-1980 were overfulfilled in both countries—by only 1 per cent in Poland, but by a substantial 6.5 per cent in Hungary. The expenditure cuts in 1979-1980 were accompanied by low or negative NMP growth, and hence, despite their size, investment ratios and ICORs continued at high though moderating rates. In both countries, ICORs during 1976-1980 were on average at least twice as high as in the earlier years of the 1970s.

In *Czechoslovakia* and *Romania*, where investment fell below the target for 1976-1980, the implied annual objectives of the five-year plans were underfulfilled in all years. In Czechoslovakia this occurred to an increasing extent in the later years, and for the period as a whole a substantial 4 per cent shortfall in investment allocations compared with plans was recorded. ICORs rose 50-60 per cent. The worsening world economic climate appears to have induced a considerable degree of official caution even at the outset with regard to the implementation of the plan's investment provisions; this is particularly noteworthy when it is borne in mind that Czechoslovakia was one of the countries where the plan foresaw a continued rise in the share of investment relative to NMP up to 1980. In Romania, the considerable margin of underfulfillment for the five years as a whole resulted largely from the recent, rapid deceleration from the very high, though still below plan, investment growth rates recorded in 1976-1978. Moreover, the revised five-year plan, published at the end of 1977, clearly shows that at that time a substantial further acceleration in investment growth rates was still envisaged for 1978-1980—some time after most of the other countries of the region had begun to cut back. The slowdown which took place in 1980 was thus very abrupt when it finally occurred. Despite a decline in the investment ratio, the accompanying sharp decrease in NMP growth brought about a strong upward movement in the ICOR, and for the 1976-1980 period as a whole ICORs were, on average, about one-third higher than during 1971-1975.

Plans for 1981 indicate no great departure from recent trends in investment growth in most countries of the region. In the Soviet Union, the 5.3 per cent plan for total investment growth is, however, some way above the 3.9 per cent average recorded between 1975 and 1980—and considerably above the (unfulfilled) target of 3.6 per cent retained for the latter year. Its achievement will imply further growth in the investment ratio and in ICORs. In those countries where investment growth was most dynamic in 1980, the 1981 objectives indicate a return to a more modest rate of advance—3.7 per cent in Bulgaria and an estimated 2.5 per cent in the German Democratic Republic; in both cases this is well below average performance during 1976-1980. A slight recovery to 4 per cent growth is expected in Romania—about one-third of growth rates planned for 1976-1980 and about half those actually achieved. Zero growth is targeted in Czechoslovakia. A bigger percentage decline than in 1980 is anticipated for the absolute level of investment in Poland, but some recovery is also apparently scheduled for Hungary. Only in the Soviet Union is investment expected to rise faster than NMP.

If over-all economic growth and investment targets are attained in 1981, it is noteworthy that ICORs will rise further, and to levels substantially beyond the 1976-1980 average in all countries but the German Democratic Republic and Romania; they are indeed expected to rise to record or near-record levels in Bulgaria, Czecho-

TABLE 3.4.2

Investment performance in 1976-1980 and plans for 1981-1985

	Average annual percentage change		*Ratios*	
	Investment	*NMP*	*Investment ratio*	*ICORs*
Bulgaria				
1976-1980	4.6	6.2	36.6	5.9
1981-1985	3.7	5.0	35.1	7.0
Czechoslovakia				
1976-1980	4.1	3.9	33.6	8.6
1981-1985	2.0	3.1	32.0	10.3
Hungary				
1976-1980	4.4	4.2	37.3	8.9
1981-1985	−0.3	3.2	32.3	10.1
Romania				
1976-1980	9.8	8.3	40.7	4.9
1981-1985 [a]	5.8	7.1	40.3	5.7
Soviet Union				
1976-1980	3.9	4.7	29.3	6.2
1981-1985	2.6	3.6	27.9	7.8

Sources: As for table 3.4.1.

Note: All figures are estimates in constant prices and are based on official indices. See also note to table 3.4.1.

[a] Indices for 1981-1985 as published in July 1979, and based on preliminary investment and NMP results for 1980 shown in table 3.4.1.

slovakia and the Soviet Union, and will remain at high levels in Hungary and Poland where investment growth is nonetheless expected to be negative.

For the longer term, preliminary draft *five-year plan* targets have been published for Bulgaria, Czechoslovakia, Hungary, Romania and the Soviet Union.[145] Cuts in over-all growth (NMP) compared with 1976-1980 and in the growth of investment are scheduled for all five countries. The implications in terms of the share of resources to be devoted to investment (the investment ratio) and ICORs are set out in table 3.4.2.

Following trends noted earlier, investment will grow more slowly than NMP in all five countries compared with the 1976-1980 period. The decline in growth rates anticipated for investment appears to be considerably larger than in the case of NMP except for Romania, where some acceleration of investment growth is scheduled. In all five countries, however, the investment ratio will fall—by as much as 5 percentage points in Hungary and by 1.4-1.6 in the other countries except Romania, for which only a very marginal decline is foreseen.

Slower over-all growth compared with 1976-1980 is again expected to be increasingly costly in terms of investment resources, and a further rise in ICORs beyond the levels of the previous five-year period are expected—by between 13 per cent (Hungary) and 26 per cent (Soviet Union). These movements are smaller than the ICOR increases recorded between 1971-1975 and 1976-1980, and seem on the whole realistic given the easing of domestic economic tensions which should result from the further deceleration in activity compared with 1976-1980 implied by the lower NMP and investment growth targets. A detailed review of changes in the capital costs of growth during 1970-1979, and the contribution of changes in individual sectors and industrial branches, is included in the annex to this section on pages 151 to 155.

(ii) Trends in sectoral and branch investment allocations

There have been few marked trends in investment allocations common to all countries of the eastern region in recent years. The rise in oil and raw material prices, which began to affect the economies of the eastern region after 1975, the recession in the western industrialized countries which has undoubtedly changed market expectations for potential eastern exporting industries and social priorities, notably housing construction, are the main factors which have influenced allocation policies in 1976-1980. But while they continue to play a role, the increasing pressure on the supply side as over-all growth rates have fallen constitutes a fourth element: the need to re-order priorities in the light of a more critical appraisal of costs and benefits in the new situation.

Since 1975 the share of the material sphere in total investment grew in Czechoslovakia, Hungary, Romania and the Soviet Union—by between 1 and 3 percentage points. This reflected some switch away from housing

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[145] The draft document published in Poland at the end of 1979 is not reviewed here, as it is understood that substantial revisions are likely.

TABLE 3.4.3

Gross fixed capital formation by main sectors of the material and non-material spheres

(Percentage distribution : total gross fixed capital formation = 100)

	Material sphere						*Non-material sphere*				
Country and period	*Total*	*Agriculture and forestry*	*Industry*	*Construction*	*Transport and communications*	*Other*	*Total*	*Housing*	*Education, etc.*	*Health*	*Other*
Bulgaria											
1976	74.1	14.7	40.4	3.7	11.2	4.2	25.9	10.8	3.7	1.8	9.6
1977	75.4	14.3	41.7	3.4	11.8	4.1	24.6	10.3	3.2	1.8	9.3
1978	75.2	12.8	41.7	3.2	14.4	3.1	24.8	10.7	3.0	1.8	9.2
1979	75.6	13.0	42.5	3.0	13.4	3.7	24.4	11.3	3.4	1.4	8.4
Czechoslovakia											
1976	72.2	11.7	37.4	3.9	14.0	5.2	27.8	14.6	5.7	2.2	5.3
1977	72.2	11.8	37.3	4.1	14.1	4.9	27.8	13.8	5.3	2.2	6.5
1978	72.0	12.3	37.1	4.9	13.2	4.5	28.0	13.3	5.2	2.3	7.2
1979	73.6	11.2	38.7	5.7	13.8	4.2	26.4	13.1	4.6	2.0	6.7
German Dem. Rep.											
1976	80.6	11.3	50.3	3.9	10.4	4.7	19.4	8.5	10.9		
1977	80.0	11.1	50.9	3.6	8.7	5.7	20.9	8.4	11.6		
1978	79.1	10.5	52.1	3.3	8.1	5.1	20.9	9.1	11.8		
1979	79.2	10.1	53.2	2.7	9.0	4.2	20.8	9.3	11.5		
Hungary [a]											
1976	72.2	13.4	34.5	2.4	12.2	9.7	27.8	..	..	..	..
1977	73.2	12.9	37.6	2.7	11.1	8.8	26.9	..	..	..	..
1978	73.8	13.4	36.9	3.3	11.6	8.6	26.1	..	..	..	..
1979	73.3	13.1	35.8	2.8	12.5	9.1	26.7	..	..	..	..
Poland											
1976	78.4	15.2	43.6	5.1	9.2	5.3	21.6	14.4	2.6	2.3	2.3
1977	77.4	16.5	41.5	5.4	8.4	5.7	22.5	15.7	2.4	2.1	2.3
1978	76.7	16.3	40.0	5.4	8.7	6.3	23.3	17.1	2.1	2.3	1.8
1979	74.5	17.6	36.9	4.9	8.3	6.8	25.5	18.8	2.2	2.9	1.6
Romania											
1976	82.4	14.4	45.8	6.1	10.6	5.6	17.6	10.6	2.6	0.9	3.5
1977	83.8	14.5	47.7	6.3	10.4	4.9	16.2	9.7	2.4	0.9	3.2
1978	84.4	13.9	49.5	6.5	10.1	4.3	15.6	9.8	2.0	0.6	3.2
1979	84.5	13.9	51.1	6.2	10.0	4.1	15.5	10.4	1.7	0.5	2.9
Soviet Union											
1976	73.9	20.6	35.2	4.2	11.3	2.6	26.1	14.0	5.2	6.9	
1977	73.8	20.4	35.6	3.8	11.4	2.6	26.2	13.9	5.2	7.1	
1978	74.2	19.9	35.5	3.7	12.5	2.6	25.8	13.5	5.1	7.2	
1979	74.4	20.2	35.3	4.0	12.4	2.5	25.6	13.3	4.9	7.4	

Sources : As for table 3.4.1.

[a] Socialist sector only.

expenditures, though the net effects were partly offset by relatively higher allocations to other non-material sectors (see text table next page and tables 3.4.3 and 3.4.4). In Bulgaria and the German Democratic Republic the share of the material sphere fell up to 1978 but the trend was reversed in 1979; in Poland a sharp fall over the first period was followed by an even steeper decline in 1979 (−2.2 percentage points in both cases).

There was a close inverse correlation between movements in shares allocated to the material sphere and shares of investment in housing during 1975-1979. This item accounts for between half and three-quarters of all investments in the non-material sphere—and is particularly high in Poland, Romania and the Soviet Union. Although no data are yet available for sectoral investment allocations, figures for housing construction in physical terms enable some approximation to be made for 1980 with regard to the share of allocation towards the material and non-material spheres respectively. Negative rates of growth of housing completions, amounting to −18 per cent in Poland, and a rather smaller −3 per cent in Hungary, suggest that the share of the material sphere rose in at least the former country in 1980 (total investment declined in absolute terms in

Changes in the share of the material sphere in total investment

(Percentage points)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1979/1978	+0.4	+1.6	+0.2	−0.7	−2.2	+0.1	+0.2
1978/1975	−0.5	+1.6	−1.3	+2.4	−2.2	+1.9	+1.0

Sources: As for table 3.4.1.

Table 3.4.4

Changes in the sectoral distribution of productive investment

(Changes in percentage points in share of total investment in the material sphere)

	Industry	*Construction*	*Agriculture and forestry*	*Transport, communications*	*Trade, etc.*
Bulgaria					
1979/1978	+0.7	−0.2	+0.2	−1.4	+0.5
1978/1975	+2.8	−1.2	−2.3	+1.5	−0.5
Czechoslovakia					
1979/1978	+1.2	+0.9	−1.7	+0.2	−0.7
1978/1975	+1.1	+1.0	−0.5	−0.8	−0.7
German Democratic Republic					
1979/1978	+1.2	−0.8	−0.5	+1.1	−0.6
1978/1975	+3.9	—	−1.4	−2.8	+0.4
Hungary					
1979/1978	−1.0	−0.8	−0.4	+1.4	+0.2
1978/1975	+5.2	+1.6	−1.7	−3.5	−1.4
Poland					
1979/1978	−2.5	−0.3	+2.4	−0.2	−0.1
1978/1975	−2.7	+0.6	+2.3	−2.2	−0.3
Romania					
1979/1978	+1.8	−0.3	−0.9	−0.3	−0.3
1978/1975	+0.8	+1.8	−0.4	−0.6	−1.7
Soviet Union					
1979/1978	+0.1	—	+0.1	−0.2	+0.2
1978/1975	−0.7	+0.1	−1.1	+1.6	—

Sources: As for table 3.4.1.

both). Housing completions grew by 2.4 per cent in the German Democratic Republic and 11 per cent in Bulgaria—rates which are in both cases below the percentage increase in total investment; it is likely that the share of the material sphere's investment allocations rose in those countries. In Romania, the rise in housing completions was, at 3.3 per cent, about the same as the 3.1 percentage rise in that country's total investment; and in Czechoslovakia and the Soviet Union, the 4.2 and 3.5 per cent rises in completions suggest a fall in the share of the material sphere in 1980.

Within the material sphere, most countries increased allocations to industry in 1979, continuing a tendency apparent throughout the area since 1975. The main exceptions were Hungary and Poland, where industry's share fell back in 1979. This reversed the 1975-1978 trend in Hungary, and reflected efforts to curb what was considered to be excessive growth in enterprise sector investment. But in Poland, the drop continued a reallocation process from which agriculture has been the main beneficiary since the mid-1970s, having recorded a 4.7 percentage point rise in its share since 1975.

With this exception, and despite marginal upturns in 1979 for Bulgaria and the Soviet Union (where there was probably a further small rise in agriculture's share in 1980) and also in Romania (where allocations to agriculture rose twice as fast as total investment in 1980), agriculture continued to lose ground to other sectors in other countries of the region in 1979 and 1980 compared with 1975. There was a further steep (−20 per cent) drop in the absolute level of allocations to agriculture in Hungary during 1980. Nevertheless, agriculture's share in material sphere investment, though relatively low in the German Democratic Republic (13 per cent in 1978) and Romania, remains high in most countries—some 27 per cent in the Soviet Union, 24 per cent in Poland in 1979, and 15-18 per cent in Bulgaria, Czechoslovakia (where attempts to increase agricultural self-sufficiency boosted farm investments in the early 1970s), Romania and in Hungary.

Investment in trade, material supplies and distribution also showed a flat or declining trend in all countries except the German Democratic Republic. This could change in the Soviet Union in the next few years, following the programme to bring about, *inter alia*, improvements in the material supply sphere proposed in October 1980.

Investment in construction—usually sensitive to changes in the economic climate—showed an above average upward movement in all countries but Bulgaria between 1975 and 1978, but lost ground in all countries but Czechoslovakia in 1979. This reversed long-standing trends in several countries and could, if continued, have implications for the future performance of a key sector where capital equipment, as well as productivity levels per worker, are low compared with industry. The fall in its share of total allocations probably reflects more than anything the recent slowdown in rates of investment growth and thus in the demand for construction work, but it could jeopardize a future upturn in productivity rates of growth in the sector, which have decelerated sharply in recent years. The disproportionately large rise in the construction sector's CORs since 1970, to which reference is made in the annex to this section (page 152), could however also suggest that the sector is experiencing some difficulty in absorbing the bigger equipment outlays of the years up to 1979.

Within industry, branch investment figures to 1979 are available for all countries but the German Democratic Republic and Hungary, where latest data extend to 1978 only (table 3.4.5). In 1979 engineering and chemicals continued to maintain a high degree of priority in the region as a whole, continuing longer-term trends since 1975. In Czechoslovakia, investment allocations to engineering grew more slowly than average, and the branch share declined by −2.3 per cent in 1979. The upturn in its share was, however, particularly strong in Bulgaria (2.3 percentage points) and in Romania (1.7 percentage points) in the same year, but there was no

TABLE 3.4.5

Changes in industrial branch distribution of investment

(*Percentage shares of total allocation to industry*)

	Energy	*Fuel*	*Metals*	*Engineering*	*Chemicals*	*Construction materials*	*Wood*	*Light*	*Food*
Bulgaria									
1979/1978 .	+1.2	+0.5	—	+2.3	−2.4	+0.1	−0.7	—	−2.2
1978/1975 .	−0.2	+1.2	+0.9	+1.7	+2.2	+1.0	−1.2	−6.4	−2.4
Czechoslovakia									
1979/1978 .	−0.1	+3.0	−0.2	−2.3	+0.7	−0.6	+1.1	+1.2	−0.6
1978/1975 .	+0.9	+1.3	+3.5	+2.8	−3.7	−0.1	+0.3	−0.2	−0.1
German Democratic Republic									
1979/1978 .	..	..	..	..	..	..	..	..	..
1978/1975 .	−1.2		+1.1	−0.9	+3.9	−0.8	..	−0.9	−1.5
Hungary									
1979/1978 .	..	..	..	..	..	..	..	..	..
1978/1975 .	+0.4	−0.1	+1.5	+2.2	−4.5	—	−2.2		+2.7
Poland									
1979/1978 .	+1.6	+1.6	−4.1	+0.2	+2.3	−0.9	−1.1	−0.4	+0.7
1978/1975 .	+2.3	+0.5	−0.2	+1.2	+1.2	−2.5	+1.0	−1.8	−2.1
Romania									
1979/1978 .	−0.2	−0.9	−0.3	+1.7	+1.6	+0.1	−0.5	−0.5	−0.4
1978/1975 .	−3.3	−1.4	—	+5.8	+1.2	−0.2	−1.0	+0.3	−1.5
Soviet Union									
1979/1978 .	+0.1	+0.8	..	+0.2	−1.8	−0.3	−1.7	−0.1	−0.4
1978/1975 .	−0.8	+2.3	..	+0.1	+2.0	−0.3	−0.2	−0.3	−1.1

Sources: As for table 3.4.1.

great change in the other countries of the region. For chemicals, the country picture is mixed. Sharp cutbacks since 1975 in Hungary and Czechoslovakia were reversed in 1979. The opposite was the case in Bulgaria and the Soviet Union. But big post-1975 increases in the chemical branches' share in the German Democratic Republic, Poland and Romania were strongly reinforced in 1979 in the latter two countries.

With regard to fuel and energy, investment demand in 1979 varied widely, as in previous years, between countries. Investment outlays on energy rose at significantly above average rates only in Poland during 1975-1978. Bulgaria increased the share of energy investment in 1979, but no other country registered similar shifts in that year. Investment in mining and fuel extraction was also more buoyant than average in the same two countries and also in Czechoslovakia and the Soviet Union in 1979, which continued or accentuated post-1975 trends in all four countries.

As can be seen from table 3.4.5, the industrial investment resource transfer into fuels since 1975 was 1.7 percentage points in Bulgaria, 4.3 in Czechoslovakia, 2.1 in Poland, and 3.1 in the Soviet Union; for Czechoslovakia and Poland, the bulk of this movement took place in 1979. For energy, the change in share over 1975-1979 was 1.0 percentage points in Bulgaria and 3.9 percentage points in Poland and again much of the movement—notably in Bulgaria—took place in 1979. These movements indicate that past plans to concentrate resources in the fuel and energy sectors were maintained or in some cases considerably up graded in 1979.

Figures for only two countries are available with regard to allocation plans for the fuel and energy branches during 1976-1980; in the Soviet Union, fuel investments were expected to account for 19.7 per cent of total industrial investment during the five years, and this target was achieved by 1976-1979. But there was a considerable shortfall for energy (plan: 12.9 per cent, actual: 8.8 per cent). For Hungary, total investment in fuels, energy, metallurgy and building materials was expected to reach 49.3 per cent in 1976-1980; in 1976-1979 their share was only 38 per cent. The pattern as between countries in thus rather patchy. Plans are on target in the Soviet Union, and these have been supplemented by the apparently recent upgrading of priorities in fuels and energy in 1979, outlined above. But apparently below-target 1976-1980 performance in Hungary, and below average investment growth in the German Democratic Republic and Romania over the same years in both branches, as well as in the energy branch for the Soviet Union suggest that fuel and energy difficulties will take some time to resolve.

Movements in the share of metallurgy, consumer industries and construction materials industries were almost entirely negative in 1979. Investments in metallurgy were very sharply down in Poland over the whole period 1975-1979. The year 1979 also saw some further decline in the relative position of consumer-oriented industries in most countries but not all. In Czechoslovakia, allocations to the light industries, including wood working, increased, reversing the trend since 1975. There was also an increase in Hungarian investment allocations to the food industry between 1975-1978 and a rise in the case of Poland in 1979, but the share of light industry continued to fall elsewhere on the more or less permanent basis observed during 1975-1978. The same is true of the construction materials industry, except in Bulgaria, where the share rose both up to and including 1979.

(iii) Investment sector management

(a) *General developments*

Within over-all policy towards the investment sector, a number of specific issues have received attention in the past in view of their important role in determining the efficiency of the investment process itself. The high capital cost of growth, and the even faster rises in the cost of investment growth as illustrated by movements in CORs and ICORs have placed a premium on the speedy installation of new plant and its rapid commissioning and working up to full capacity operation.

It is too early to assess the specific effects of organizational reforms introduced in several countries in 1978 and 1979 to increase the efficiency of investment activity. But a number of general indicators allow regular assessment of progress.

A primary objective has been to increase the share of machinery and equipment and hence to tilt the balance of expenditures towards the directly productive element in total investment. Since 1976, substantial progress has been made only in Poland, Romania and the Soviet Union; the share of machinery and equipment rose by 3.3 and 5.2 percentage points respectively by 1980 in the former two countries, and by 2.7 per cent in the Soviet Union up to 1979; further increases are scheduled in Romania and the Soviet Union in 1981 (table 3.4.6).

In Poland, where investment in the non-material sphere—and particularly housing investments—increased sharply in recent years, the change in the ratio was clearly a good deal higher for the material sphere alone than the average figure for total investment suggests; machinery and expenditures moreover declined much less sharply than total investment in 1980. In the other four countries, the trend in the share was slightly downward since 1975, and in particular in 1979.

Progress in this sphere is also related to the need to minimize the time needed to bring new production capacity into operation. There has been a strong tendency in the past in all countries for investment resources to be dissipated among a large and growing number of new investment projects—some 27,000 large and small projects according to a recent report from Czechoslovakia—rather than to concentrate efforts on the rapid commissioning of uncompleted capacity. The large volume of idle resources which results from this practice has recently stimulated the introduction of measures to penalise late completion and to pay bonuses for early and on-time commissioning of plants.

It is not yet possible to evaluate the results of these new options—though in the German Democratic Republic, where they have been in operation for a number of years, the ratio of fixed capital brought into operation to investment expenditures has consistently been the highest in the eastern region. However, most countries have seen some improvement in this indicator since 1976 (table 3.4.7). In Poland the improvement has been very sharp—especially in 1979—though in large part this is a consequence of the fall in the absolute level of investment in that year. The trend of the indicator during 1976-1979 was, however, favourable in all countries of the region

TABLE 3.4.6

Fixed capital formation by type of capital good: output of capital goods industries and foreign trade in machinery and equipment

	Annual percentage change								*Machinery and equipment: percentage share in gross fixed capital formation*
	Gross fixed capital formation		*Output of capital goods industries*				*Foreign trade in machinery and equipment*		
			Construction [a]						
Country and period	*Construction work*	*Machinery and equipment*	*Total*	*Site work*	*Building materials industry* [b]	*Engineering*	*Exports* [c]	*Imports* [c]	
Bulgaria	[d]	[d]	[d]	[d]					[d]
1976	3.3	−1.7	5.0	3.3	8.0	10.7	18.1	3.5	41.9
1977	15.7	10.1	11.2	15.7	7.8	15.0	24.9	7.1	40.3
1978	−2.2	3.4	6.9	−2.2	10.4	11.0	14.9	14.3	41.4
1979	1.8	−11.2	2.9	1.8	6.9	5.5	9.5	−0.3	37.7
1980	1.3	30.0	..	1.3	3.3	6.3	15.7	3.2	..
Czechoslovakia									
1976	3.3	6.2	4.9	3.4	6.5	8.5	16.7	9.5	41.8
1977	3.2	9.8	2.9	3.5	3.9	7.3	14.4	20.5	39.3
1978	2.1	7.1	3.6	3.7	4.8	6.5	12.4	11.0	40.5
1979	0.6	3.5	1.3	2.5	2.5	6.6	6.6	0.9	41.2
1980	1.4	0.9	..	1.3	4.4	4.6	10.6*	8.6*	41.0*
Plan 1981	..	..	2.8	..	3.2	5.5	..	..	..
German Democratic Republic						[e]			
1976	8.1	6.6	6.9	6.4	9.6	7.2	13.8	19.5	49.2
1977	8.7	2.8	5.9	5.3	5.0	6.1	10.4	14.9	47.2
1978	1.5	3.5	1.9	2.6	4.6	6.4	13.6	3.8	48.2
1979	1.1	2.0	1.8	—	1.0	7.2	15.2	8.3	48.1
1980	..	..	..	5.7*	6.0*	7.0*	..	..	..
Plan 1976-1980	..	..	..	5.0	7.0-7.3	..	..	..	..
Plan 1981	..	..	..	2.8	..	..	..	..	..
Hungary	[f]	[f]							
1976	−1.2	0.8	3.7	4.6	3.4	5.5	4.6	5.0	45.5
1977	14.2	13.8	7.1	6.4	5.8	6.9	12.9	12.3	45.3
1978	2.6	6.8	5.4	3.7	6.8	6.0	2.4	18.6	45.8
1979	3.0	−1.8	3.7	0.8	3.9	3.7	15.1	1.3	44.5
1980				−5.4	3.0*	−4.5*	−2.7	−15.0	..
Plan 1976-1980	..	..	..	5.5-6.0	5.2-5.5	6.3-6.7	..	..	..
Plan 1981	..	..	..	−1.0					
Poland									
1976	−0.2	6.8	1.7	5.3	5.8	13.5	13.6	14.9	42.5
1977	3.3	4.4	3.9	3.6	4.1	10.2	17.0	3.0	42.5
1978	−0.1	5.6	3.8	4.5	2.1	5.8	11.8	3.8	42.2
1979	−5.6	−9.1	−2.8	−4.6	−4.6	5.7	17.2	−1.9	43.2
1980	−15.0*	−5.0	−6.0	−9.4	..	..	1.0	−2.5	45.8
Plan 1981	..	..	..	..	..	4.5*	..	..	..
Romania									
1976	5.1	11.2	8.6	5.7	14.3	12.2	16.6	4.6	43.9
1977	6.1	18.4	13.8	10.3	16.9	15.1	19.1	33.0	46.6
1978	13.2	19.9	10.4	10.7	16.3	14.1	12.2	17.7	48.2
1979	4.2	3.7	3.7	3.0	12.4	11.5	8.9	3.8	48.0
1980	0.6*	2.5*	..	..	5.5	9.8	..	..	49.2*
Soviet Union									
1976	1.2	9.7	2.7	2.6	3.5	9.2	20.9	15.4	34.5
1977	2.1	5.7	2.1	3.3	2.7	9.0	15.1	9.9	35.2
1978	1.6	8.4	3.1	3.0	2.6	8.7	11.9	26.6	35.9
1979	−0.6	4.3	1.0*	0.6	−0.6	7.6	6.4	−0.9	37.2
1980	..	..	..	1.0	2.0	6.0	..	..	..
Plan 1976-1980	..	..	..	5.8	5.4	9.1	..	..	..
Plan 1981	..	..	..	..	..	6.1	..	..	39.0

Sources: As for table 3.4.1.

[a] Of the two series shown for construction output, the "total" column refers to all activity according to national accounts definitions and covers site work ("construction-installation work")—shown in the next column—together with planning, design and survey work undertaken by all enterprises, whether or not mainly engaged in construction, and in all sectors of the economy (including private housing and non-housing output). Inter-country coverage for total output is broadly comparable, and coincides with the coverage of data for fixed assets and employment in construction shown in table 3.4.9. Site work is the main planning aggregate and refers to building activity proper, including repair and maintenance work. However, historical data are not always fully comparable, either between countries or—for a given country—with latest year estimates and plan targets. The coverage may variously include all sectors, the socialist sector only, construction firms' output only, etc. Site work as shown covered 74-86 per cent of total construction activity in 1979 (but only 67 per cent in Bulgaria due to the exclusion of repair and maintenance work). Despite discrepancies, the linking of plan targets with historical series for site work appears to give a fair indication of trends in building output proper.

[b] Output of building materials industry only except for the German Democratic Republic, for which series covers output of all sectors and industrial branches.

[c] At current prices (national currencies) except for Hungary, 1976-1979 only, for which data are expressed in constant 1976 forint prices; 1980 estimates for Hungary and Poland are based on January-September and are in current prices.

[d] At current prices.

[e] Including electrical engineering; replaces former series covering mechanical engineering only.

[f] Socialist sector only.

TABLE 3.4.7

Fixed capital brought into operation

Country and period	Billions of national currency units					Percentage of gross fixed capital formation				
	Total	Agriculture and forestry	Industry	Construction	Transport and communications	Total	Agriculture and forestry	Industry	Construction	Transport and communications
Bulgaria [a]										
1976	4.51	0.78	1.43	0.19	0.58	83.9	99.1	66.0	94.8	95.7
1977	5.90	0.92	2.09	0.21	0.78	96.1	105.1	81.7	97.3	107.6
1978	5.62	0.81	2.20	0.17	0.87	90.8	101.6	85.2	88.1	97.7
1979	5.49	0.77	2.22	0.16	0.74	91.0	98.3	86.4	86.4	90.1
Czechoslovakia										
1976	134.4	15.9	52.8	5.1	15.4	101.6	102.6	108.7	101.6	83.3
1977	130.6	16.7	47.0	5.4	17.9	93.4	101.7	90.2	95.0	90.1
1978	131.7	17.9	47.9	6.6	18.7	90.5	100.7	88.9	91.5	96.6
1979	131.5	16.5	50.8	7.1	18.2	88.8	99.4	88.5	84.2	89.4
German Democratic Republic										
1976	41.5	5.0	20.0	1.3	4.7	91.8	98.4	87.9	75.7	99.5
1977	42.7	5.2	20.8	1.7	4.1	89.4	99.5	85.6	99.3	98.4
1978	46.5	5.1	24.5	1.5	4.0	94.7	99.5	95.8	93.8	99.3
1979	46.7	5.0	23.7	1.5	4.0	93.8	100.0	90.1	100.0	95.2
Hungary [a]										
1976	136.0	20.1	46.2	3.8	23.2	89.4	95.2	78.5	92.7	111.8
1977	147.5	22.1	54.3	4.9	18.8	81.3	93.0	71.7	89.3	84.1
1978	168.4	25.8	71.8	6.7	18.3	85.2	90.8	89.2	91.8	72.3
1979	182.5	26.5	73.1	5.8	26.2	89.5	93.6	90.8	93.5	93.6
Poland										
1976	447.3	87.4	202.9	27.7	50.7	72.2	99.3	74.2	86.6	88.2
1977	568.6	113.0	246.1	29.8	53.9	86.6	106.0	90.7	84.4	98.0
1978	567.9	122.0	227.3	36.6	54.3	84.0	112.4	84.5	101.1	91.4
1979	569.0	124.9	204.8	39.1	57.1	90.2	114.2	88.7	126.6	107.7
Romania										
1976	136.5	21.3	60.8	9.1	14.7	90.1	97.4	87.7	98.7	92.0
1977	145.9	21.7	66.9	10.4	15.8	86.2	88.6	82.9	96.5	90.4
1978	155.8	23.6	68.4	12.2	16.7	79.4	86.6	70.4	96.0	83.7
1979	155.3	20.7	68.6	11.9	16.2	76.0	77.2	65.8	93.8	79.4
Soviet Union										
1976	107.1	..	..	..	..	90.8	..	..	..	..
1977	110.5	..	..	..	..	90.4	..	..	..	..
1978	120.1	..	..	..	..	92.6	..	..	..	..
1979	120.1	..	..	..	..	92.0	..	..	..	..

Sources: As for table 3.4.1.

[a] In current prices; Hungarian figures refer to socialist sector only.

except Czechoslovakia and Romania; in these two countries the indicator in 1979, following further sharp falls in that year, was 12.8 and 13.9 percentage points below its 1976 level.

Progress in this sphere has been linked in several countries with plans to modernize, reconstruct and extend existing capacities, rather than construct new ones. In Bulgaria, some 63 per cent of investment outlays were allocated for this purpose in 1980. In the Soviet Union, the corresponding share of investment expenditures rose from 68 to 70 per cent between 1975 and 1979, and a 10 per cent rise in the level of outlays for modernization and reconstruction only (excluding extension) was recorded for 1980.

These objectives have tended to encourage a faster rise in the demand for machinery and equipment than implied by the growth of total investment expenditures. Since 1978 output of the engineering industry has increased in most countries at substantially lower rates than those recorded in the middle of the last decade; only in the German Democratic Republic did output rise at unchanged rates—or even a little faster than in the past (table 3.4.6). A further deceleration probably affected the region as a whole in 1980, and the growth in engineering output was apparently negligible or negative in Hungary and Poland. In the other countries, growth in 1980 was between half and three-quarters of the rates achieved in the mid-1970s. Similar trends appear likely to persist into 1981; in

TABLE 3.4.8

Supply and demand for certain investment goods and for construction materials

(*Indices: previous year = 100*)

Country and period	*Engineering output to machinery and equipment investment expenditure*	*Machinery and equipment: imports [a] to investment expenditures*	*Building materials [b] output to site work output*
Bulgaria			
1971-1975 [c]	102.8	106.0	104.8
1976-1979 [c]	110.8	106.4	103.9
1976	112.6	105.3	104.5
1977	104.5	97.4	93.2
1978	107.4	110.5	112.9
1979	118.8	112.3	105.0
Czechoslovakia			
1971-1975 [c]	99.7	106.8	98.5
1976-1979 [c]	100.6	103.5	101.1
1976	102.2	103.1	103.0
1977	97.7	109.7	100.4
1978	99.4	103.6	101.1
1979	103.0	97.5	100.0
German Democratic Republic			
1971-1975 [c]	103.0	107.9	101.1
1976-1979 [c]	102.9	107.6	101.4
1976	100.6	112.1	103.0
1977	103.2	111.8	99.7
1978	102.8	100.3	101.9
1979	105.1	106.2	101.0
Hungary	[d]	[d]	
1971-1975 [c]	98.3	100.3	100.0
1976-1979 [c]	100.9	104.3	101.1
1976	104.7	104.2	98.9
1977	93.9	98.7	99.4
1978	99.3	111.0	103.0
1979	105.6	103.2	103.1
Poland			
1971-1975 [c]	93.5	102.0	94.6
1976-1979 [c]	107.1	103.1	99.7
1976	106.3	107.6	100.5
1977	105.6	98.7	100.5
1978	100.2	98.3	97.7
1979	116.3	107.9	100.0
Romania			
1971-1975 [c]	101.1	97.9	103.1
1976-1979 [c]	100.2	101.2	107.1
1976	100.9	94.1	108.1
1977	97.2	112.3	106.0
1978	95.2	98.2	105.1
1979	107.5	100.1	109.1
Soviet Union			
1971-1975 [c]	102.5	110.2	100.7
1976-1979 [c]	101.5	105.3	99.7
1976	99.5	105.2	100.9
1977	103.1	104.0	99.4
1978	100.3	116.8	99.6
1979	103.2	95.0	98.8

Sources: As for table 3.4.1.

[a] Imports at current prices except for Hungary (1976 forint prices).

[b] Building materials industry output only except for German Democratic Republic, for which data include output of all sectors and branches.

[c] Arithmetical averages of individual-year index numbers.

[d] Based on machinery and equipment expenditures in the socialist sector only.

Czechoslovakia and the Soviet Union rises of 5.5 and 6.1 per cent respectively are planned in 1980. This is about two-thirds of the rates achieved in the mid-1970s in both cases.

(b) *Investment supplies*

Available information suggests that, despite the slowdown in output growth rates in engineering, the supply of domestically produced items improved in relation to investment demand in all countries in 1979, and probably again in 1980 as over-all investment growth rates declined further (table 3.4.8). The tightness in 1980 in Bulgaria and the German Democratic Republic due to the upturn in investment may have been offset in part by stock-piling during previous years when the supply-demand relationship improved substantially. Statistics on output of Soviet engineering in general confirm that supplies of investment goods for specific industries have kept pace with investment demand in that country. The only exception is of goods for chemical industry investment where the deceleration in output growth was somewhat higher than the deceleration of investment expenditures by the industry.

TABLE 3.4.9

Gross output and factor inputs in construction

(*Annual percentage change*)

Country and period	*Gross output total* [a]	*Fixed assets* [b]	*Employment* [c]	*Per employee*	
				Gross output	*Fixed assets*
Bulgaria	d				
1976	5.0	13.9	−1.3	6.4	15.4
1977	11.2	5.0*	3.9	7.0	1.1
1978	6.9	12.1	2.5	4.3	9.4
1979	2.9	9.5	1.0	1.9	8.4
Czechoslovakia					
1976	4.9	8.1	1.4	3.5	6.6
1977	2.9	7.7	1.2	1.7	6.4
1978	3.6	9.4	1.2	2.4	8.1
1979	1.3	8.0	1.3	—	6.6
German Democratic Republic					
1976	6.9	7.8	1.7	5.1	6.0
1977	5.9	9.1	1.0	4.9	8.0
1978	1.9	7.9	0.9	1.0	6.9
1979	1.8	7.5	0.5	1.3	7.0
Hungary					
1976	3.7	12.5	0.6	3.1	11.8
1977	7.1	11.7	—	7.1	11.7
1978	5.4	13.6	—	5.4	13.6
1979	3.7	11.9	−2.1	5.9	14.3
1980	−5.4	..	−4.0	−1.5	..
Poland					
1976	1.6	12.5	−1.5	3.5	14.2
1977	3.9	12.9	−0.1	4.0	13.0
1978	3.8	15.0	0.8	3.0	14.1
1979	−2.8	13.5	−1.6	−1.2	15.3
1980	−6.0*	..	−3.7	−2.4*	..
Romania					
1976	8.6	22.9	2.7	5.7	19.7
1977	13.8	15.4	5.6	7.8	9.3
1978	10.4	16.5	2.9	7.3	13.2
1979	3.7	12.3	1.6	2.1	10.5
Soviet Union	d			d	
1976	2.7	11.4	1.6	1.1	9.6
1977	2.1	10.3	1.6	0.5	8.6
1978	3.1	11.6	1.8	1.3	9.6
1979	1.0*	8.3	1.2	−0.2	7.0

Sources: As for table 3.4.1.

[a] See footnote a to table 3.4.6.

[b] End-year except for the German Democratic Republic for which annual averages are shown. Fixed assets are valued at constant prices for all countries except Bulgaria and Romania, where full historical cost valuation is used.

[c] Annual averages except for the German Democratic Republic, Hungary and Romania, where data relate to employment on enumeration dates (30 September in the German Democratic Republic and 31 December in Hungary and Romania). Hungarian figures refer to manual workers only.

[d] Current prices.

Growth rates for exports of machinery and equipment were very buoyant compared with corresponding import growth rates for these products since 1975. This was the case especially since 1978, when import growth rates fell very sharply relative to exports in all countries, negative import growth being registered in several of them (table 3.4.6). Growth rates are, however, based on figures in value terms except for Hungary; given the rise in prices of recent years, and also the fact that a large proportion of such exports are purchased by other CMEA countries, it does not seem likely that domestic supplies in the region as a whole were significantly affected by sales abroad of these items. The relatively slower growth of imports compared with exports is due to the higher relative share in the former total of transactions with countries outside the eastern region—from which purchases have slowed down since 1975. The percentage growth rates for imports of machinery and equipment since 1975—when due account is taken of price rises—thus indicate a considerable tightening in imported supplies in all countries relative to investment demand for machinery and equipment.

(c) *Construction*

Throughout the entire region, the output growth rate in the construction sector has faltered since 1978—even earlier in the case of Bulgaria (table 3.4.9). In 1980, falls in the level of site work activity took place in Hungary, and in Poland it declined for the second successive year. In all other countries but the German Democratic Republic, growth dropped to rates well below those achieved in 1979, ranging between an estimated 0.6 per cent in the Soviet Union to 3.3 per cent in Bulgaria. In the German Democratic Republic, the growth in output probably rose to 5.7 per cent. Plans, where available, suggest a further low level of activity in 1981 for most countries, and range from an anticipated 1 per cent fall in Hungary to targets of below 3 per cent in Czechoslovakia and the German Democratic Republic. Only in the Soviet Union is output expected to expand substantially—by 5 per cent, which is a reflection of the upturn in over-all investment activity also scheduled for 1981. The close link with investment activity suggests a further steep decline in Poland and probably little growth in Romania.

As a result of decelerating trends in output, labour productivity in the sector has fallen sharply in recent years—despite a considerable investment effort to re-equip the industry during the last quinquennium. The industry's share of investment up to 1978—though low in relation to its share of output—was maintained, or increased in all countries but Bulgaria over the four years 1976-1979, particularly large rises being allocated in Czechoslovakia and Romania. The share decreased in a number of countries in 1979, but the value of fixed assets per worker has risen by 5-10 per cent annually in most countries—and by 12-15 per cent annually in Hungary and Poland—since 1975. In Bulgaria, Hungary and Romania, labour productivity grew at very high rates—ranging between 3 and 7 per cent in individual years up to 1978. In Czechoslovakia, the German Democratic Republic and Poland it also grew fairly fast—typically by 3-5 per cent annually. Productivity growth was, however, low in the Soviet Union—some 0.5-1.5 per cent annually up to 1979. Growth rates of productivity in 1979 declined sharply in most countries—particularly in those where it had previously been highest. Negative or no growth was recorded by three countries in the latest years for which figures are available (Czechoslovakia, Poland and the Soviet Union). Part of the reason for this very sharp deceleration in productivity growth is that, since the declining demand for construction work began, the labour force has continued to grow—albeit at lower rates—in all countries but Hungary and Poland.

In most countries, the supply of building materials has approximately kept pace with the rise in construction output in most years (table 3.4.8).[146] The notable exception is the Soviet Union. Shortages of specific types of building materials have been reported in several other countries in recent years. Moreover, although year-to-year changes in supplies have on the whole kept pace with the growth of site work activity in the construction sector in all countries but the Soviet Union, the movement of the ratio in Czechoslovakia, the German Democratic Republic and Poland indicates that the relationship between supply and demand is less favourable than before. Significantly, it is in these four countries that investment in the building materials industry has lagged behind the growth of total investment expenditures by industry as a whole since 1975.

(iv) Investment pricing

Price policy has not been used as a major investment policy instrument, though a number of price adjustments have been made in several countries with limited objectives in mind. Although little systematic price information is published in the area as a whole, a number of countries publish investment series at differing degrees of sectoral detail in both current and constant prices (Czechoslovakia, Hungary and Poland)—enabling implicit price deflators to be calculated (table 3.4.10). Indices of total investment volume, and figures in value terms by sector and investment branch, are published for Bulgaria—but their evidence suggests that no price movements at all have taken place since 1962, the base year retained for the calculation of the index. For the German Democratic Republic and Romania, price deflators showing movements between the two most recent price base years give indications of movements between 1967-1975, and 1963-1977, respectively. For the Soviet Union, investment statistics in the regular statistical series are presented in 1969 prices; no data on the more recent evolution of investment prices are available.

The more complete data for Czechoslovakia, Hungary and Poland indicate that these countries have adopted more active over-all price policies during the last decade. In Hungary and Poland, investment prices were increased between 1970 and 1979. In the former country the indices began to rise moderately in the early 1970s, and more substantial movements were again reported after 1976. In Poland, a large upward adjustment was implemented in 1971, and a bigger one in 1976. In

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[146] These trends should, however, be interpreted with caution, since, except for the German Democratic Republic, they relate to output by the building materials industry only. In the German Democratic Republic, output by enterprises in other sectors and branches has grown more rapidly than have supplies by the building materials industry. Nothing is known about the contribution of enterprises outside the building materials industry in the other countries of the region.

Table 3.4.10

Implicit price deflators for investment expenditures

I. INVESTMENT PRICE INDICES OF TOTAL, MACHINERY AND EQUIPMENT AND CONSTRUCTION EXPENDITURES

(1970 = 100)

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*
Czechoslovakia									
Total.	99	99	99	98	98	98	88	87	88
Machinery, equipment	100	99	99	98	98	98	83	83	84
Construction . . .	99	99	99	98	98	97	90	90	90
Hungary									
Total.	102	106	108	110	114	118	123	127	130
Machinery, equipment	100	105	108	109	113	117	121	123	125
Construction . . .	103	108	109	111	115	120	126	133	137
Poland									
Total.	110	110	110	110	112	126	128	130	130
Machinery, equipment	103	103	103	103	103	105	107	109	109
Construction . . .	116	116	117	117	121	147	151	152	153

II. INVESTMENT PRICE INDICES BY SECTOR, TYPE OF EXPENDITURE AND BY INDUSTRIAL BRANCH

	Czechoslovakia 1979/1975	*Hungary 1979/1970*	*Poland 1979/1970*	*German Democratic Republic 1975/1967*	*Romania 1977/1963*
By sector		[a]		[b]	[b]
Industry	88	129	124	104	97
Construction	87	121	117	113	87
Agriculture	89	130	144	98	105
Material sphere	89	130	127	103	99
Non-material sphere	92	131	143	115	112
Total	90	130	130	105	101
	1977/1967	*1979/1970*	*1977/1971*	*1975/1967*	*1977/1963*
By type of expenditure	[b]		[b]	[b]	[b]
Machinery, equipment . . .	90	125	104	101	91
Construction	101	137	130	106	111
By industrial branch		[c]			
Energy	96	123	120	..	96
Fuels	95	119	119	..	101
Metals	94	124	112	..	98
Engineering	94	131	108	..	94
Chemicals	94	123	108	..	97
Construction materials . . .	94	125	113	..	100
Light	93	132	106	..	93
Food	94	123	118	..	99
Total	95	125	111	..	97

Sources: As for table 3.4.1.

[a] Unit prices.

[b] Derived from coefficients of 1975 values expressed in the indicated final and base year prices respectively.

[c] 1978/1970.

Czechoslovakia there was little movement until 1976 when investment prices were reduced.

In the above-mentioned three countries, the total rise was about 30 per cent in Poland and Hungary between 1970 and 1979, and there was a roughly 12 per cent reduction in Czechoslovakia.

Though price movements over the last decade have thus been on the whole modest, there have been some significant inter-country differences. The price rise in the German Democratic Republic, as shown by the coefficient between total investment in 1975 as expressed at 1967 and 1975 prices, amounted to only 5 per cent over the whole eight years (no information is available for the period after 1975). For Romania, a price rise of some 1.5 per cent between 1963 and 1977 can be derived by the same method. And the growth of the investment volume index in Bulgaria as compared with developments in value terms indicates a rise of only about 1 per cent over the last 16 years.

There is no evidence to suggest that the system of administered prices common to the area has been used in a systematic way to curb or to stimulate the investment sector as such. In some countries investment prices have fallen relative to the over-all price level (Czechoslovakia) and in others they have risen (Poland). Nor has there been more than a partial effort to adjust domestic prices in line with external market forces. For machinery and equipment, prices fell by 10 per cent in Czechoslovakia, and rose by a modest 10 and 25 per cent in Poland and Hungary respectively over 1970-1979—as compared with a rise of some 3½ times (in dollars) for this category of eastern imports from western countries. In Czechoslovakia and Poland moreover, movements have on the whole been lumpy and do not indicate that prices are playing more than a marginal role in adjusting promptly to changing scarcities. This is however less true in Hungary where price movements have been more evenly distributed over the years.

The statistical evidence does suggest that in some countries prices are now beginning to play a modest role in the allocation of resources within the investment sector, though there are some inconsistencies. Policies to reduce the share of construction activity in total investment expenditures have already been noted; they are also clearly evident in investment price movements of all countries for which statistical evidence is available. In Hungary and Poland since 1970 and in Czechoslovakia since 1976, there have been marked increases in the respective implicit price indices of construction expenditures relative to machinery and equipment outlays. The differential amounted to a relative price rise in construction expenditures with respect to machinery and equipment of some 6 per cent in Czechoslovakia (since 1975), 10 per cent in Hungary and 40 per cent in Poland (since 1970). In the German Democratic Republic, the divergence amounted to a rather small 5 per cent (1967-1975) but in Romania to 22 per cent (1963-1977).

There is also some evidence of differentiated price developments with regard to investment in the material sphere of the economy as compared with the non-material branches—in line with recent policies in most countries to stimulate the development of investment expenditures in the material sphere at higher than average rates. In Czechoslovakia, the two indices have diverged since 1975 by 3 percentage points (i.e. prices in the non-material sphere have fallen less fast). In Hungary investment prices in the material sphere rose by 1 percentage point less than in the non-material sphere since 1970. This reflects only in part the greater share of construction activity—where prices fell more slowly or rose faster than for machinery and equipment—as compared with investment in the non-material sphere. In Poland, the divergence is much more marked, the implicit price index for the non-material sphere having climbed about 13 per cent faster than that for the material sphere since 1970—about the same as for Romania between 1963 and 1977 and somewhat more than in the German Democratic Republic (12 per cent) 1967-1975.

With regard to sectoral price movements, the absolute rise in agricultural investment prices, where over 60 per cent of investment is spent on construction projects, has been particularly rapid in Poland (about 44 per cent, compared with some 30 per cent for the whole economy). This movement runs counter to the priority status accorded to agriculture in recent years in terms of its growing share of investment allocations—and may in part result from the classification of independent farmers as private individuals. The price rise has been lowest for the construction sector and—within the non-material sphere—for Polish investment in scientific research (rises of 17 and 19 per cent respectively compared with 1970). In Hungary, Czechoslovakia and Romania, the price rise for construction sector investment goods has also risen by less than for others but by much more than average in the German Democratic Republic. Agriculture investment prices rose faster than average in Romania, but slower in the German Democratic Republic.

Further examination does not, moreover, suggest any systematic use of pricing policy within industry to encourage or discourage investment activity in one or another industrial branch. The fall in the implicit industrial price index between 1967 and 1977 is remarkably uniform in Czechoslovakia, with price changes ranging from falls of 7 per cent in light industry to 4 per cent in the fuel and energy branches. In this case, price movements appear to work against policies to increase investments in the extractive branches and energy, and are inconsistent with the reduction in the share of total industrial investment in the food and chemical branches since 1975. This differentiation pattern does, however, accord with the rising share of investment in light industry branches. By contrast, investment price developments in Poland between 1971 and 1977 show a somewhat greater spread between branches. The average movement for industry was a rise of about 11 per cent—but rises in individual branches ranged from 6 per cent for light industry, 8 per cent for engineering and chemicals, 12 per cent in metals, 18 per cent for the food industry, 19 per cent for fuels and mining, and 20 per cent for energy investment—a highest-to-lowest spread of 13 per cent. For the latter and light industry, price movements are inconsistent with investment allocation patterns since 1975.

The Hungarian pattern is similar. The average rise in industry was higher than in Poland—some 25 per cent—but the spread was about 11 per cent during 1970-1978 and ranged from an increase of 19 per cent in the fuel industry, 23 per cent in the chemical and food industries to 31 per cent in engineering and 32 per cent in light industry. Except for light industry and chemicals these movements were almost completely contrary to observed branch allocation patterns. The spread in Romanian industry is somewhat lower—some 7 per cent between fuels (highest) and light industry and engineering (lowest)—a pattern slightly more consistent with branch allocation movements since 1975.

At the over-all level of economic management, therefore there is no evidence that any country has systematically used price policies as an instrument for allocating resources between investment and other demand sectors; though in some cases it may have been used to reinforce resource allocation patterns basically implemented by more direct measures (central budgetary disbursement, administrative regulation of enterprise funds, credit policy and tax regulations). At the same time, price differences have developed between different types of investment (productive and non-productive; construction and machinery/equipment expenditures; industrial and various non-industrial) which appear to conform with investment allocation priorities, and with observed changes in the distribution of investment expenditures. There is, however, only limited evidence of this with regard to industrial branch investment allocation policies.

ANNEX

THE CAPITAL COST OF GROWTH

Differences in individual countries' experience and their response to it do not conceal a feature common to a greater or lesser degree in all countries and which has intensified throughout the last half of this decade: the unprecedently and—except for the Soviet Union—above-plan rises in incremental capital-output ratios—or in other words—the progressive rise in the capital cost of increasing output. The continuation of this phenomenon in most countries of the area in 1980 has already been described in a previous section. The phenomenon is closely related to the problem of diminishing labour supply in the eastern area. The substitution of capital for labour will, by definition, increase ICORs and eventually CORs over the long term—at least to the extent that technical progress does not bring about improvements in efficiency and hence reductions in capital costs per unit of output sufficient to offset completely capital cost increases associated with labour substitution.

Other factors may also work to accelerate the growth of capital costs. These include shifts of resources from low to high capital-intensive sectors and branches, changes in the capital efficiency within sectors and branches—which includes the influence of such factors as shortages in goods for further processing, costs of mastering new technologies, management shortcomings, slack demand for products entailing the under-realization of capacities, the relocation of productive investment towards locations where associated infrastructural investment costs increase, or where operation is more costly because of severe climatic conditions or other geographical factors.

The rise in the capital costs of growth can be illustrated either in terms of ICORs (which are less stable and hence less suitable for benchmark year analysis) or in terms of movements in the relationship between total fixed assets and production (capital-output ratios). In the rest of this section, changes in CORs in the eastern region will be reviewed to illustrate the total effects of recent changes in capital requirements on over-all (NMP) and industrial development performance during 1970-1979; to illustrate the effects of structural changes in the distribution of fixed assets by economic sectors and industrial branches; and to indicate the sectors and industrial branches where the changes in capital requirements per unit of output have been most marked.[147] While the effects of changes in CORs due to shifts between high and low capital intensive sectors and branches will thus show up, and the impact of individual sector and industrial branch movements will be presented, no attempt is made to analyze specific causes of changes at sub-sectoral and sub-branch level, since no adequate statistics are available to do so.

The technique used was to construct series showing CORs for up to six sectors of the economy (NMP), and for up to nine individual industrial branches (in terms of gross output) per country. Comparisons were made between actual growth during 1970-1979 with what growth might have been if the structure and unit production requirements of fixed assets (CORs) had remained constant at 1970 levels; to reveal by arithmetical techniques the respective influences on over-all growth of changes in whole-economy and whole-industry COR's; and to find the contribution to those changes of individual sector and industrial branch CORs on the one hand, and of changes in the sectoral and industrial branch distribution of fixed assets on the other.[148]

The results summarized in the text table below show that in no country was the *growth of NMP* promoted by the movement of aggregate CORs during 1970-1979. The effects of changing sectoral CORs inhibited growth of NMP to some 76-89 per cent of what it would otherwise have been if sectoral CORs had remained constant since 1970.

The text table also shows that the effects of changes in the sectoral CORs were partly offset by changes in the structure of fixed assets from high to relatively low capital-intensive sectors.[149] Nevertheless, even taking into account the growth boosting effect of structural change since 1970, the net effect of the two elements remains large

Effects on 1979 NMP levels of post-1970 sectoral COR changes and fixed asset shifts

(Per cent of NMP in 1979 assuming 1970 sectoral CORs and fixed asset structure)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Effects of:							
Sectoral COR changes .	−14.3	−12.7	−10.7	−22.5	−18.9	−13.8	−23.9
Fixed asset shifts . . .	+3.7	+3.2	+2.3	+11.3	+2.5	+3.0	+1.3
Total (net) COR change	−10.6	−9.5	−8.4	−11.2	−16.4	−10.8	−22.6

Source: Table 3.4.11.

Note: Minus sign = growth inhibiting effect and plus sign = growth boosting effect.

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[147] It should be noted that fixed assets in the non-material sphere have been excluded from the analysis.

[148] To summarize the argument: aggregate NMP (and total industry) CORs are composed of two elements: the effects of movements in the individual sector (industrial branch) CORs on the one hand, and on the other effects of changes in the fixed asset structure (i.e. by shifts from a low COR to a high COR sector/branch or vice versa); hence aggregate NMP (and industry) COR changes represent the net effect of changes in the sector/branch CORs and of changes in the sector/branch distribution of fixed assets.

[149] The effect of changes in fixed asset structures also includes, on a net basis, an "interaction effect". This is not shown separately since it is relatively small. To simplify, it shows separately the net effects of changing sectoral CORs in "recipient" sectors/branches on that part of total fixed assets actually shifted; it can thus best be considered as part of the "structural change" effect.

and negative, and indicates that NMP in the various countries of the region in 1979 stood at some 78-92 per cent of the levels it might otherwise have reached if sectoral CORs and the sectoral distribution of fixed assets had remained as in 1970.

A similar exercise conducted for *gross industrial output* reveals that trends were similar in Hungary, Poland and the Soviet Union, where COR changes had noticeable effects on growth, though the results are scarcely significant for Bulgaria, Czechoslovakia or (up to 1976) [150] for the German Democratic Republic: in the three last named countries, COR effects amount to less than 5 per cent (above or below) of industrial production assuming 1970 CORs and industrial branch fixed asset structures, though in the first three countries this factor appears to have accounted for shortfalls of 14-19 per cent. Again, changes in fixed asset structures asserted a positive influence except in the Soviet Union. However, in that country and also in three others where their effects were positive, their influence on growth was negligible, but fixed asset structural shifts appear to have boosted industrial growth significantly in Bulgaria and Poland.[151]

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[150] The German Democratic Republic has not published detailed data on industrial fixed assets by branch for years after 1976.

[151] Romania is excluded from this part of the analysis since it publishes no statistics on industrial fixed assets by branch.

Effects on 1979 gross industrial production levels of post-1970 branch COR changes and fixed asset shifts

(Per cent of potential gross industrial production in 1979 assuming 1970 branch CORs and fixed asset structures)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.* [a]	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Effects of:							
Branch COR changes .	−4.8	−0.4	+0.5	−18.9	−16.8	..	−14.4
Fixed asset shifts . . .	+6.1	+1.2	+1.2	+1.1	+4.2	..	−0.3
Total (net) COR changes	−1.3	+0.8	+1.7	−17.8	−12.6	..	−14.7

Source: Table 3.4.11. [a] 1976.

The data presented in table 3.4.11 give information on the effects of changes in the individual CORs of the *principal sectors and industrial branches* and on their share in the contribution of sectors and branches to the aggregate NMP and gross industrial production COR effect respectively. They show first that within NMP, the industrial sector (net product basis) has accounted for a relatively small share of the over-all growth inhibiting effects of rising sectoral CORs in absolute terms. This result is the more pronounced when industry's performance is viewed in relation to its 50-65 per cent share of total productive fixed assets. Indeed, its contribution to 1979 COR-induced production growth effects were positive in Bulgaria. It accounted for 38 per cent of COR change growth-inhibiting effects in Czechoslovakia, 35 per cent in the German Democratic Republic, 20 per cent in Hungary, 38 per cent in Poland (positive up to 1975), 1 per cent in Romania (positive in 1975-1978) and 24 per cent in the Soviet Union. Conversely, the negative contribution of agriculture was very large indeed both in absolute terms and even more so proportionally to its share in total fixed assets. The same was also true of construction, the negative contribution of which in relation to its share of fixed assets was even higher than that of agriculture. The results are summarized, for 1979 only, in the following text table:

Sectoral contributions to total growth-inhibiting effects of post-1970 COR changes (A) compared with sectoral shares of fixed assets (B), 1979

(Per cent of totals)

	Bulgaria		*Czechoslovakia*		*German Dem. Rep.*		*Hungary*		*Poland*		*Romania*		*Soviet Union*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
Agriculture	66	17	34	16	30	13	40	19	49	25	33	15	57 [a]	27 [a]
Construction	28	4	24	4	21	3	25	3	30	4	37	6	16	5
Industry	−9	52	38	61	36	64	20	42	38	47	1	60	24	48
Other	15	27	4	19	13	20	15	38	−17	24	29	19	3	20

Source: Table 3.4.11.

Note: Minus sign indicates growth boosting effect (this table only).

[a] This includes the contribution of trade, material supply and related sectors, and non-specified production. It is not possible to give separate figures for agriculture's share in NMP, nor hence to calculate agricultural CORs, since no Soviet figures suitable for analysis have been published for the years following 1974. Other evidence, notably the sectoral breakdown of NMP in current prices (publication of which was discontinued for the years after 1978), suggests that the contributions of the other sectors included here under agriculture to NMP have probably boosted growth during 1970-1979, and hence that the growth inhibiting effects of agriculture are understated in this table.

TABLE 3.4.11

Effects of post-1970 changes in capital-output ratios (CORs) and changes in the sectoral and industrial branch distribution of fixed assets on total (NMP) and on gross industrial output (GIP) in 1975, 1978 and 1979

	Bulgaria			*Czechoslovakia*			*German Democratic Republic*			*Hungary*		
	1975	*1978*	*1979*	*1975*	*1978*	*1979*	*1975*	*1978*	*1979*	*1975*	*1978*	*1979*
						(Billions of national currencies)						
A. *NMP: combined effects*	−0.72	−1.94	−2.14	−0.6	−29.6	−45.2	−3.89	−11.99	−15.78	−9.55	−34.42	−57.60
Due to COR changes	−1.30	−2.63	−2.90	−9.6	−43.5	−60.3	−6.02	−15.63	−20.13	−42.49	−88.45	−115.94
whereof: In industry	−0.23	+0.44	+0.26	+5.7	−14.7	−22.9	−2.29	−5.73	−7.12	−4.01	−15.35	−22.87
In construction . .	−0.43	−0.70	−0.81	−2.7	−11.4	−14.5	−1.47	−3.21	−4.31	−13.78	−24.38	−29.18
In agriculture . . .	−0.77	−1.93	−1.93	−7.8	−15.7	−20.2	−2.24	−5.74	−6.09	−22.27	−36.33	−46.78
Other sectors . . .	+0.13	−0.44	−0.42	−4.8	−1.7	−2.7	−0.02	−0.95	−2.61	−2.43	−12.39	−17.11
Due to changes in the sectoral distribution of fixed assets	+0.58	+0.69	+0.76	+9.0	+13.9	+15.1	+2.13	+3.64	+4.35	+32.94	+54.03	+58.34
B. *GIP: combined effects*	—	+0.16	−0.36	+30.4	+20.2	+5.1	+3.58	+3.67	..	−53.76	−117.31	−164.37
Due to COR changes	−0.37	−0.93	−1.32	+22.6	+13.7	−2.6	+1.10	+1.05	..	−52.44	−123.67	−174.57
whereof: In engineering . . .	+0.30	+1.01	+1.02	+18.9	+27.4	+29.0	+0.14	+1.26	..	+0.98	−16.49	−25.41
In chemicals . . .	−0.04	+0.14	+0.14	+3.8	+6.5	+5.2	+0.40	+0.55	..	−4.08	−4.71	−9.05
In light and food .	−0.84	−2.23	−2.33	−6.1	−18.6	−25.9	−0.27	−1.79	..	−32.91	−77.28	−104.85
In energy and fuel .	+0.11	+0.08	+0.03	−2.1	−6.8	−10.2	−0.55	+0.01	..	−6.69	−12.72	−16.66
Other industrial branches	+1.00	+0.07	−0.18	+8.1	+5.2	−0.7	+0.88	+1.02	..	−9.74	−12.47	−18.60
Due to changes in the industrial branch distribution of fixed assets	+0.37	+1.09	+0.96	+7.8	+6.5	+7.7	+2.48	+2.62	..	−1.32	+6.36	+10.20
C. *Memorandum*						*(Percentages)*						
Combined effects at A above as share of NMP[b]	−4.8	−10.3	−10.6	−0.2	−6.6	−9.5	−2.6	−6.7	−8.4	−2.4	−7.1	−11.2
Combined effects at B above as share of gross industrial output[b]	—	+0.6	−1.3	+5.7	+3.2	+0.8	+1.8	+1.7	..	−7.9	−13.8	−17.8
COR change effects at A above as share of NMP[b]	−8.7	−14.0	−14.3	−2.6	−9.7	−12.7	−4.0	−8.8	−10.7	−10.6	−18.3	−22.5
COR change effects at B above as share of gross industrial output[b]	+1.7	−3.6	−4.8	+4.3	+2.1	−0.4	+0.6	+0.5	..	−7.7	−14.5	−18.9

TABLE 3.4.11 (*continued*)

	Poland			Romania			Soviet Union		
	1975	*1978*	*1979*	*1975*	*1978*	*1979*	*1975*	*1978*	*1979*
					(Billions of national currencies)				
A. *NMP: combined effects:*	+62.17	−147.09	−331.90	−9.63	−40.80	−59.90	−56.47	−101.82	−129.25
Due to COR changes	+22.74	−192.88	−384.25	−16.07	−57.34	−76.29	−59.81	−108.93	−137.03
whereof: In industry	+29.47	−64.38	−147.30	+1.18	+2.31	−1.02	−7.55	−22.71	−32.86
In construction	−20.21	−85.29	−116.12	−10.73	−22.21	−28.19	−7.42	−18.08	−21.28
In agriculture	−65.37	−127.98	−184.72	−12.11	−19.61	−24.98	−44.10	−65.26	−77.92
Other sectors	+78.85	+84.77	+63.89	+5.59	−17.83	−22.10	−0.74	−2.88	−4.97
Due to changes in the sectoral distribution of fixed assets	+39.43	+45.79	+52.35	+6.44	+16.53	+16.39	+3.34	+7.11	+7.78
B. *GIP: combined effects:*	+64.30	−153.69	−288.56	..	..	..	−28.51	−79.46	−105.68
Due to COR changes	−14.85	−265.12	−416.43	..	..	..	−28.18	−79.11	−103.84
whereof: In engineering	+12.31	−42.54	−65.53	..	..	..	+7.93	+6.19	+5.50
In chemicals	+23.93	+23.24	+7.11	..	..	..	+1.36	—	−3.12
In light and food	−56.90	−151.26	−197.52	..	..	..	−25.97	−55.42	−66.30
In energy and fuel	+5.06	−24.19	−36.54	..	..	..	−2.53	−7.57	−11.19
Other industrial branches	+0.75	−70.37	−123.95	..	..	..	−8.97	−22.31	−28.73
Due to changes in the industrial branch distribution of fixed assets	+79.15	+111.43	+127.87	..	..	..	−0.33	−0.35	−1.84
C. *Memorandum*					*(Percentages)*				
Combined effects at A above as share of NMP [b]	+4.3	−7.8	−16.4	−2.6	−8.0	−10.8	−13.2	−14.0	−22.6
Combined effects at B above as share of gross industrial output [b]	+3.8	−6.7	−12.6	..	..	..	−5.3	−11.8	−14.7
COR change effects at A above as share of NMP [b]	+1.6	−10.2	−18.9	−4.3	−11.3	−13.8	−14.0	−20.4	−23.9
COR change effects at B above as share of gross industrial output [b]	−0.9	−11.6	−16.8	..	..	..	−5.2	−11.7	−14.4

Source: As for table 3.4.1.

Note: A minus sign indicates a total, sectoral, or industrial branch growth inhibiting effect of changes in corresponding CORs or in aggregate fixed asset structures. For "A" above, "other" consists of transport and communications, trade, etc., and unspecified sectors for all countries but the Soviet Union; in the latter case trade, etc. and unspecified sectors are included in agriculture.

[a] 1976.

[b] At NMP levels assuming 1970 CORs and 1970 sector/branch distribution of fixed assets.

Table 3.4.11 contains additional information enabling the effects of *individual sectoral COR changes* (and of changes in the sectoral distribution of fixed assets) to be examined between 1970-1975, and between 1975-1978 and 1978-1979. A striking feature is the relative increase in the growth inhibiting effects of sectoral COR changes relative to the growth promoting effects of fixed asset structural changes since 1975, and the rise in the levels of both sectoral and branch COR change effects and, hence, of the combined growth inhibiting effects during the 1976-1980 plan period. The phenomenon was common to all countries, and similar movements in the same direction continued between 1978 and 1979 in all countries but Romania and the Soviet Union.

Within the industrial sector similar techniques, of which the results are also shown in table 3.4.11, permit assessment of the performance of *selected industrial branches* for most countries. The most striking feature here is the positive contribution to the gross output increase made in virtually all countries throughout the whole period 1970-1979 by engineering, and in most countries—though to a smaller extent—by chemicals. The exception with regard to chemicals is Poland, and, in the case of engineering, both Hungary and Poland—though in none of these cases until after 1975. The positive contribution of both sectors however generally declined in all countries after 1975,—and was even negative for engineering in the Soviet Union in 1979.

Although not shown in the table, the contribution of the metallurgical industry is worthy of note: in Bulgaria, Czechoslovakia and the German Democratic Republic, the metallurgical branch contributed positively to growth on an increasing scale during 1970-1979. By contrast the change in CORs in metallurgy began to contribute negatively to growth in Hungary and Poland—particularly after 1975; the branch's share in the total growth boosting or growth inhibiting effects of COR changes was in all cases, however, relatively small. (No fixed asset figures for this branch can be derived for the Soviet Union.) Conversely, COR changes in the combined light and food industry branches contributed negatively to growth—on a large scale in all countries in all reference years; and their joint negative contribution indeed accounted for the largest element in the total industrial growth inhibiting effects of COR changes in all countries.

With regard to over-all effects on industrial production in individual countries, total (net) branch COR changes in industry resulted in some positive effect on growth in Czechoslovakia, Poland and Romania until the mid-1970s.[a] By 1979, the total effect of branch COR changes on gross industrial production for the five countries whose figures are available were still only marginally negative in Czechoslovakia and accounted for a small, −5 per cent negative effect on output in Bulgaria; in Hungary, Poland and the Soviet Union they were substantially negative and growing fast after 1975—these total growth inhibiting effects rising to 18.9, 16.8 and 14.4 per cent respectively of potential 1979 industrial output levels calculated on the constant 1970 CORs and fixed asset structure assumption. The effect of changes in fixed assets structures on industrial growth was, as for NMP, positive in most countries: it was relatively large in Bulgaria and especially big in Poland; and was rather small but negative in the Soviet Union.

Within industry, the striking feature is the extent to which both growth boosting and growth inhibiting effects are concentrated on particular branches. Positive contributions were made in virtually all countries up to 1979 by engineering and to a lesser extent by chemicals. However, the positive effects declined over time. In Hungary, chemicals, and in Poland, engineering, have become negative in recent years. The obverse of well above average performance in these branches is the very large negative contribution to growth caused by rapidly rising CORs in the light and food industries. The two industries combined account for some 25-35 per cent of gross industrial output throughout the eastern area, and are responsible in Bulgaria, and Czechoslovakia, for substantially more than the total COR growth inhibiting effect (though in these two countries they are relatively small) on the industrial sector as a whole. In Hungary, Poland and the Soviet Union, they accounted together for 48-60 per cent of total negative branch COR effects in 1979. For fuel and energy combined, a similar though less marked tendency appeared in Czechoslovakia, Hungary, Poland and the Soviet Union, but the COR effects of the two branches were positive in Bulgaria and in the German Democratic Republic (up to 1976).

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[a] In assessing the results for industry, it should be borne in mind that the use of figures on a gross and net output basis sometimes shows different movements, which reflect above all different rates of increase in material costs per unit of output. In Bulgaria, Hungary, Romania and the Soviet Union, net output grew faster than gross by 7.1, 9.1, 1.5 and 3.5 respectively during 1970-1979, while it fell short in Czechoslovakia, the German Democratic Republic and Poland by 8.9 and 4.3 per cent. The aggregate growth inhibiting and growth boosting effects of COR and fixed asset changes presented in table 3.4.11 should therefore be viewed in the light of these differences; since no figures are available for net industrial output by branch in most eastern countries, it was not possible to ensure comparability with NMP results. The apparent growth-boosting effects of both branch CORs and fixed asset structural changes observed for Czechoslovakia, the German Democratic Republic and Poland thus paradoxically owe something to the slower reduction of material costs of industrial production in those countries, as suggested in the table below. However, this does not necessarily affect the *relative* effects on growth of changes in CORs of different branches.

Indices of industrial growth in 1979
(1970 = 100)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Net	212	154	161	180	198	275	178
Gross . . .	198	169	170	165	207	271	172

5. CONSUMERS' INCOMES AND SUPPLIES

(i) Incomes and incomes policies

In 1980, the *real income per head of the population* rose in all countries of the region except Hungary. The spread of growth rates ranged between 0.5 per cent in Poland and 3.5 per cent in the Soviet Union. The other countries reported increases of between 2.4 and 3.0 per cent. In Hungary per capita real income did not increase (table 3.5.1). As compared with 1979, the rise of real income per head of the population was lower in 1980 in most countries of the region, reflecting the slowdown in economic expansion. Taking into account a marked decline in NMP in Poland, the 0.5 rate of growth of real income reflects the high priority given to maintaining the standard of living in that country; similarly the decline in NMP recorded in the preceding year did not prevent a 2.4 per cent growth of real income—though this appears to have been confined to the non-agricultural work force. For 1981, annual plans in Bulgaria, the German Democratic Republic and Romania provide for higher growth rates while policies in Hungary and Poland emphasize maintenance of current levels of real income.

In all countries of the region, per capita real incomes have increased continuously during the current five-year period, although the medium-plan targets were as a rule higher than the performance actually achieved: only in the German Democratic Republic did the rise exceed the plan target (see text table below).

Growth of real income per head of population, 1976-1980
(*Average annual percentage change*)

	Five-year plan	*Actual*
Bulgaria	3.7	2.4
Czechoslovakia	..	1.9
German Democratic Republic	3.9-4.2	4.4
Hungary	3.4-3.7	1.7
Poland	..	2.9
Romania	6.2-7.0	5.1
Soviet Union	3.9	3.3

Source: As for table 3.5.1.

There is no full information on the growth of *real wages* in 1980. The Soviet Union recorded the highest rate of growth of the countries in the region (3.2 per cent); the Byelorussian SSR with a 4.4 per cent increase was somewhat higher, while the annual increase in the Ukrainian SSR was 3.6 per cent. Among the east European countries, Romania recorded a rise of 2.5 per cent. For most countries, available data suggest that growth trends were similar to the changes in real incomes. On this basis it can be estimated that in Hungary real wages decreased by 2.6 per cent. There is likely to have been little change compared with 1979 in Poland. In Bulgaria, Czechoslovakia and the German Democratic Republic, real wages rose by some 2.5-3.0 per cent.

Changes in *money incomes* of the population show great inter-country disparities (table 3.5.2). This largely reflects varying policies towards consumer prices. Whereas countries such as the German Democratic Republic and the Soviet Union are maintaining virtually stable prices for consumer goods, Bulgaria, Czechoslovakia and Romania experienced price increases of almost 4 per cent in 1979. In Hungary and Poland, and probably also in Bulgaria, the estimated price increase in 1980 was around 5-10 per cent. Money incomes in 1980 hence rose at the lowest rates in the German Democratic Republic (2.8 per cent), and by around 4.5 per cent in Czechoslovakia and the Soviet Union. Most probably Bulgaria experienced a rise at a rate above the 6.3 per cent recorded in 1979. The increase in Hungary was around 9 per cent annually in the period 1977-1979 but around 5 per cent in the year under review. In Hungary the guidelines for the five-year plan 1981-1985 envisage an increase of 4.5-5.0 per cent annually. While this should compensate for a similar rise in consumer prices, it indicates that policy towards real wages is likely to continue to be restrictive in the next few years.

In Poland an 11.5 per cent rise in money incomes was recorded in 1980. A further improvement of 17 per cent is expected in 1981 due to the situation which was created by agreements to step up wages, social benefits and agricultural incomes in the second half of 1980 and at the beginning of 1981. Wages and wage-like incomes show largely the same trend.

Almost complete data are available for average ***monthly** nominal wages* (see text table page 158); by and large they follow trends in money incomes and nominal wages.

In Bulgaria, following wage and salary increases, including those granted following changes in wholesale and retail prices announced in November 1979, the annual average salary of workers and employees increased in state and co-operative sectors of industry by 13.5 per cent in comparison with 1979. In construction they rose by 12.5 per cent, in transport by 14.5 per cent and in trade by 14 per cent. In the period 1981-1985 average monthly wages and salaries will increase by 14.5 per cent.

In Czechoslovakia the tendency was to slow down wage growth from 1978. Under recent systems of remuneration, the major share of wages was determined on the basis of quantitative indices and gross production, and only 4 per cent reflected quality indices. From 1 January 1981, 80 per cent of wages will be fixed according to the performance of enterprises. Bonuses will depend on returns on fixed assets and working capital. If profitability performance is not maintained or the enterprise in question makes low profits in relation to capital, the bonus fund will be reduced. Losses caused by poor quality production

TABLE 3.5.1

Real income and real wages

(*Annual percentage change*)

Period	*Real income per head of population*	*Real wages per wage or salary earner*	*Real income per head of population*	*Real wages per wage or salary earner*
	Bulgaria		*Romania*	[a]
1976	4.6	0.8	8.7	5.8
1977	0.6	0.4	2.8	5.5
1978	1.3	0.4	8.0	8.0
1979	2.9	1.5	3.3	2.5
Plan 1980	3.0	. .	. .	2.1
1980	2.7	. .	2.4	2.5
Plan 1981	3.1	. .	. .	3.4
	Czechoslovakia		*Soviet Union*	[b]
1976	3.3	2.0	3.7	3.8
1977	2.3	2.0	3.5	2.5
1978	1.0	1.9	3.0	3.0
1979	0.6*	−0.8	3.0	2.1
Plan 1980	2.2	—	2.9	2.1
1980	2.4*	. .	3.5	3.2
Plan 1981	. .	. .	2.9	1.8
	German Democratic Republic		*Byelorussian SSR*	[b]
1976	5.0	3.0	6.0	7.2
1977	5.9	3.2	3.0	2.2
1978	4.2	3.2	4.0	2.8
1979	3.4	3.0	4.0	2.1
Plan 1980	3.4	. .	3.8	5.1
1980	3.0	. .	3.0	4.4
Plan 1981	. .	. .	3.2	2.2
	Hungary		*Ukrainian SSR*	[b]
1976	0.8	0.1	5.0	4.7
1977	4.9	3.7	4.0	2.2
1978	2.9	3.1	3.0	2.3
1979	—	−1.3	2.2	2.3
Plan 1980	—	—*	3.5	3.7
1980	—	−2.6*	2.0	3.6
Plan 1981		—*	2.9	. .
	Poland			
1976	5.7	3.9		
1977	5.3	2.3		
1978	0.4	−2.7		
1979	2.4	2.0		
Plan 1980	1.0-1.3	ca. 1.0		
1980	0.5	2.5		
Plan 1981	. .	. .		

Sources: National statistics, plans and plan-fulfilment reports.

[a] Increase in wage fund in real terms.

[b] Average nominal wages.

Average monthly nominal wages and salaries

	Average monthly wages and salaries in national currency units 1980	Annual percentage changes						
		1976	1977	1978	1979	Plan 1980	1980	Plan 1981
Bulgaria	181	1.4	2.0	4.0	5.1	. .	9.7	. .
Czechoslovakia	2 640	2.8	3.2	3.0	2.5	. .	2.4	. .
German Democratic Republic	1 011 [a]	3.5	2.9	3.2	3.0	. .	. .	. .
Hungary	4 050*	5.7	8.9	8.4	10.4	4.5	4.5	4.5-5.0
Poland	5 755	8.8	7.3	6.1	8.7	6.6	12.8	. .
Romania	2 256	8.3	6.2	10.6	4.8	. .	7.0	. .
Soviet Union	168.5 [b]	3.8	2.5	3.0	2.1	2.4	3.2	1.8

Sources: As for table 3.5.1.

[a] 1979.

[b] Earnings plus payments and benefits from social funds total 232 roubles per month.

TABLE 3.5.2

Money incomes

(*Annual percentage change*)

Period	Total money income	Wage and wage-like income	Income from agriculture	Pensions and social benefits		Total money income	Wage and wage-like incomes	Income from agriculture	Pensions and social benefits	
				Total	Pensions				Total	Pensions
			Bulgaria					*Hungary*		
1976	. .	6.9	24.5	5.5	7.4	6.1	5.6	−0.2	13.8	19.1
1977	. .	1.8	−2.5	5.5	7.5	9.6	7.3	17.1	9.8	12.5
1978	. .	4.5	5.2	4.0	7.1	8.1	9.0	—	8.4	10.5
1979	. .	6.3	4.0	6.2	7.9	9.5	7.6	6.7	18.6	21.8
1980	. .	. .	. .	. .	. .	9.5	6.3	10.7	15.6	14.2
			Czechoslovakia					*Poland*		
								[b]		
1976	4.9	4.0	−1.1	8.7	12.9	12.1	10.6	21.7	15.5	16.6
1977	4.5	4.7	0.5	3.5	3.3	12.3	9.0	14.2	17.2	22.8
1978	3.5	4.2	1.2	2.6	2.7	8.9	7.2	5.2	16.6	20.4
1979	3.6	3.4	1.8	5.7	5.3	9.9	9.1	7.3	17.3	20.6
Plan 1980	5.3	2.8 [a]	. .	7.1	. .	8.0	6.7	7.1	16.0	19.0
1980	4.1	3.5	. .	4.4	6.8	11.5	12.0	7.0	. .	13.1
Plan 1981	. .	1.7	. .	. .	. .	17.5*	. .	. .	. .	. .
			German Democratic Republic					*Soviet Union*		
1976	3.9	4.4	. .	. .	1.9	5.8	5.9	4.8	5.7	5.3
1977	5.2	4.7	. .	. .	13.0	4.5	4.6	4.0	4.1	5.4
1978	3.6	4.5	. .	. .	7.1	5.1	5.4	2.2	5.4	6.6
1979	2.8	3.7	. .	. .	1.4	4.0	4.0	0.5	2.7	5.9
Plan 1980	4.0	. .	. .	. .	. .	4.5	3.7	5.4	8.3	10.0
1980	2.8		. .	. .	16.1	4.5	4.4	1.1	6.2	7.5
Plan 1981	4.0		. .	. .	. .	3.5	3.1	4.2	5.7	7.0

Sources: As for table 3.5.1. [a] Average monthly wage. [b] Non-socialized sector only.

will be deducted from profits set aside for wages, and will thus reduce the sums available for wage payments. Trials of the new wage system offer promising indications of how the new system will work—particularly as regards the relationship between the growth of productivity and earnings. Productivity at enterprises using the new system increased by 6.8 per cent in 1979 and monthly earnings by 3.5 per cent.

In Poland money incomes rose in 1980 by about 140 billion zlotys or 11 per cent; within this, money incomes of workers in agriculture rose by 7 per cent. According to official data average earnings in the socialized economy during the first eight months of 1980 amounted to 5,597 zlotys or 297 zlotys more than the average for the previous year and about 700 more than two years ago. By the end of 1980, average pay had been increased to 6,203 zlotys. The biggest increase was in the health service (1,389 zlotys), the smallest in the state administration (500 zlotys).

The average 800 zlotys per capita rise was paid to all workers and is generally regarded as compensation for rises in the cost-of-living. The scale and distribution of the rises varied in individual branches and plants, but the general intention was to raise the lowest incomes, formerly estimated at 2,400 zlotys. Hence the wage differential between the lowest and highest paid workers was reduced.

In Romania, a slowdown in the rate of growth of wages was registered in 1979. Average monthly nominal wages rose by 7.0 per cent in 1980. From 1 August 1979 to 1 December 1980 about 4 million people benefited from increased remuneration, and a second group of 2.8 million workers also received pay rises from 1 December. This concluded measures laid down in the 1976-1980 plan from which the total employed population has now benefited. As a result, wages in 1980 exceeded the 1975 level by between 30-32 per cent, as against the initial provision of 18-20 per cent. Maximum wage rates were increased from 1,595 lei in 1975 to 2,238 lei in 1980 (by 40 per cent) and minimum rates from 1,114 to 1,425 lei (by 28 per cent). Wage differentials between highest and lowest paid workers rose from 43 to 56 per cent.[152] From 1980, workers have received additional income supplements under profit-sharing schemes under the system of workers' self-management and self-administration of enterprises. Profitable enterprises have set up a workers' profit-sharing fund to which 3 per cent of the planned profit is contributed, together with up to 25 per cent of above-plan profit derived from material cost reductions and savings on other production expenses. Moreover, the profit-sharing fund can be augmented by up to 10 per cent of above-plan profits earned if enterprises exceed export plans.

In the Soviet Union, stable rates of growth of average monthly nominal wages averaging some 2.9 per cent annually were achieved during 1976-1980. A rise of 3.2 per cent was recorded in 1980, and a 1.8 per cent increase is planned for 1981. The average wages of factory and office workers rose by more than 15 per cent in 1980 as against 1975. In agriculture, incomes were affected both by production outcomes, and by rises in procurement prices. Agricultural incomes in total rose by 1.1 per cent in 1980, and the incomes of collective farmers from work in the publicly owned economy rose by 26 per cent in comparison with 1975. Of the total, about 31 million workers in the non-material sphere have received increases in wages amounting to 4.1-4.6 per cent annually in the last five years.

According to the guidelines for the economic and social development of the Soviet Union over 1981-1985, the average monthly pay of workers and employees is to be raised by 13-16 per cent, which will bring it up to 190-195 roubles by the end of the five-year period. The earnings of collective farmers from collective farm activity are expected to rise by 20-22 per cent. Improved wage determination systems will tighten up the relationship between bonuses and labour input.

Incomes from agriculture were influenced to a great degree by results in agricultural production, and also by the changes in procurement prices. For 1980, data are available only for Hungary (10.7 per cent), Poland (7 per cent) and the Soviet Union (1.1 per cent).

Pensions and social benefits in Czechoslovakia, the German Democratic Republic, Poland and the Soviet Union rose faster than money incomes and wages in 1980 (see table 3.5.2). In that year, a 16.1 per cent increase in the total amount of pension payments in the German Democratic Republic was reported.[153] A notable 13.1 per cent increase was implemented in Poland. Czechoslovakia and the Soviet Union have reported a more modest but still considerable increase of around 7 per cent. Hungary has continued its policy of high rates of growth in resources allocated for pensions, which reached 14.2 per cent in 1980—compared with a minimum annual figure of 10.5 per cent in 1976-1980.

Data are not available for Bulgaria for 1980, but the rates recorded in the years between 1976-1979 show that the increase was between 7 and 8 per cent annually. The *social consumption fund* rose by 20 per cent in 1980 compared with the previous year. A decree on improving the financing and management of the health services sector was promulgated in 1980. According to the decree, State budget subsidies for free medical services are to be held at the current level and increased gradually in the future. Basic medical services will henceforth be on a free-of-charge principle, which will involve increases in budgetary subsidies.

In Czechoslovakia, payments from the social consumption fund increased by 5 per cent in comparison with 1979; social consumption per capita amounted to 8,900 crowns, and increased by 4.5 per cent. Total pension and social benefit payments rose to 62 billion crowns or by 4.4 per cent. In 1980 pensions alone amounted to 42 billion crowns (an increase of 6.8 per cent).[154]

In the German Democratic Republic total social funds were stepped up by 7.0 per cent over 1979 and amounted to 52 billion marks; a further 10 per cent rise to 57.4 billion marks is anticipated in 1981. The amount of pensions rose to a total of 16.7 billion marks in 1980.

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[152] The highest average earnings were in industry (5,862 zlotys), the building industry (5,938 zlotys) and science (5,832 zlotys). At the same time, the average earnings in education were 4,520 zlotys, trade 4,391 zlotys and health service 4,363 zlotys. *Zycie Warszawy*, 19 September 1980.

[153] 10 per cent per capita average increase.

[154] *Rudé Pràvo*, 23 January 1980.

In Hungary nearly 150 billion forints were allocated for social benefits, an increase of more than 13 per cent over 1979. More than 86 billion forints were allocated to workers in the public sector, again a 13 per cent rise compared with 1979. Some 2 million pensioners will share a total payment of 555 billion forints—an increase of 14.2 per cent over 1979. Contributions from enterprises account for 10 per cent of the social benefit fund; the rest was provided by the state. From 1 July 1980, family allowances for families with three or more children, and for single parents with two children, were increased.

In Poland the annual rates of growth of total social benefits and pension payments reached the high level of 15.5-17.3 per cent and 16.6-22.8 per cent respectively during the 1976-1979 period. Pension payments increased by 13.1 per cent in 1980. The law on old age and disability pensions, as well as other benefits for farmers and their families, took effect on 1 July 1980. This means that the system of social insurance now includes all working people, including private farmers. All farmers—men over 65 and women over 60—are now entitled to apply for an old-age pension, the size of which will depend on their having sold a minimum value of produce to the state (15 thousand zlotys annually). Farmers are also now covered for family and child allowances, free medical care, and accident and sickness benefits. On 1 January 1981, the minimum old-age pension was stepped up to 2,300 zlotys a month. Other old-age and disability pensions were also increased.

In Romania state pensions rose by 26.1 per cent during 1976-1980 and co-operative farm pensions rose by 20 per cent in the same five-year plan period; child allowances increased by 25 per cent, and the total social consumption fund rose by 39.3 per cent respectively.

In the Soviet Union the social consumption funds amounted to an annual average of around 105 billion roubles over the five-year period 1976-1980. Per capita grants and benefits from these funds rose to 438 roubles in 1980 compared with 354 in 1975; they contribute over 23 per cent to the total income of an industrial worker's family and more than 19 per cent to a collective farmer's family. In 1980 the social consumption fund increased by 5.7 per cent in comparison with the previous year, and will expand by a 3.7 per cent annual average in 1981-1985. Total social benefits and pension payments increased by 6.2 and 7.5 per cent respectively in 1980.[155]

The share of the social consumption funds channelled into pensions and social benefits in the countries of the region ranged between 36-57 per cent in 1979 (see table 3.5.8). Education and culture accounted for 21-28 per cent, health services for 15-24 per cent, and expenditures for other social purposes to 8-21 per cent of total resources allocated for social consumption.

Personal savings deposits continued to increase in most countries of the region usually at rates exceeding the growth of money incomes (see following text table). This reflected partly advance savings for consumer durables and also unsatisfied demand for consumer goods.

Personal savings deposits
(Annual percentage change)

	1976	*1977*	*1978*	*1979*	*1980*
Bulgaria	7.9	4.9	3.5	7.9	. .
Czechoslovakia .	8.9	8.6	3.8	3.2	7.0
German Democratic Republic.	6.5	7.3	6.9	5.4	. .
Hungary	14.3	15.7	16.2	8.7	6.8
Poland	10.3	10.9	10.4	11.6	. .
Soviet Union . .	13.2	8.6	12.4	11.5	6.9

Sources: As for table 3.5.1 and *CMEA Yearbook*, 1980.

In Poland action taken to increase supplies of goods and services over 1981 is not expected to satisfy fully the rise in demand expected as a result of increases in money incomes. In order to stabilize the market, a decision has been taken to increase the interest rates paid on savings and to offer a greater range of services with emphasis on saving for specific purposes.[156]

(ii) Consumer prices and price policies

State subsidies continue to play an important role in most countries of the region in maintaining retail price stability or in limiting price rises in line with plans. Increases in the price levels of 2-9 per cent took place in 1979, and were accompanied by appropriate wage adjustments in most east European countries. Price increases in most countries were intended to reduce subsidies paid to compensate for differences between retail and producer prices. The exceptions were the German Democratic Republic and the Soviet Union, where consumer price indexes were practically unchanged during the whole 1976-1980 period (table 3.5.3).

Food prices rose more steeply in 1980 than those for non-food goods in Bulgaria, Hungary and Poland; only Czechoslovakia and Romania recorded a higher price increase for the latter group of goods largely due to petrol and energy price movements. In Poland, Czechoslovakia and Hungary, prices for services for the year rose by 6.9, 5.3 and 3.4 per cent respectively; in Romania they rose more slowly—by 1.5 per cent.

In *Bulgaria* the consumer price index rose by 4.6 per cent in 1979 compared with an aggregate rise of 6.8 per cent in the 1976-1979 period. In 1980, the rise in prices for several groups of consumer goods has probably brought about some acceleration in the movement of the index. This will accelerate compared with 1979, perhaps to between 5 and 10 per cent. From 21 April 1980, the price of tobacco products was increased by 50-100 per cent, depending on quality. During May-September 1980, the retail prices of vegetables went up by about 50 per cent and of fruit by about 20 per cent compared with the same period of 1979.

In the *German Democratic Republic* there was no change in policies to maintain stable retail prices. The price of

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[155] The state spends, on average, 180 roubles a year for each school child, 680 roubles a year per student in secondary education, and over 1,000 roubles for a student undergoing higher education. Annual state expenditure on crèches amounts to 450 roubles per child and in kindergartens to 380 roubles.

[156] For instance, starting from the first quarter of 1981, people will be able to make advance deposits amounting to half the value of a motor car, payments made in 1981 becoming available for a purchase in 1982-1984, and payments made in 1982 for a purchase in 1985-1986.

TABLE 3.5.3

Consumer price index

(Preceding year = 100)

Country and year	*Total*	*Food*	*Non-food*	*Services*
Bulgaria [a]				
1976	100.2	100.4	100.0	..
1977	100.4	100.3	100.6	..
1978	101.5	101.3	101.7	..
1979	104.6	106.2	103.4	..
Czechoslovakia				
1976	100.8	101.3	101.0	100.2
1977	101.3	101.4	101.8	100.6
1978	101.6	101.9	101.6	100.4
1979	103.9	101.4	105.3	105.3
Plan 1980	102.9	..	..	..
German Democratic Republic				
1976	100.0	100.0	100.0	100.0
1977	99.8	100.0	99.7	100.0
1978	100.0	100.0	99.9	100.0
1979	100.2	100.0	100.5	100.0
Hungary		[b]		
1976	105.0	105.7	105.0	102.4
1977	103.9	105.6	102.7	103.2
1978	104.6	105.9	104.1	103.9
1979	108.9	111.6	108.2	103.4
Plan 1980	103.7[c]	..	..	..
1980	109.0	..	..	..
Plan 1981	104.0-104.5	..	..	..
Poland		[a]		
1976	104.4	104.6	106.0	103.2
1977	104.9	107.4	104.7	104.8
1978	108.1	107.4	107.3	103.9
1979	107.0	107.4	105.9	106.9
Plan 1980	105.0[d]	..	..	..
1980	110.0	114.0	106.0	106.0
Romania			[e]	[f]
1976	100.7	100.6	109.0	102.6
1977	100.5	100.9	100.4	101.0
1978	101.6	100.9	100.6	102.4
1979	102.0	100.8	113.0	101.5
1980	104.0*	..	..	..
Soviet Union				
1976	100.0	100.0	100.0	..
1977	100.3	100.0	101.0	..
1978	100.7	101.1	100.2	..
1979	101.3	100.0	101.8	..

Sources: As for table 3.5.1.

[a] State retail price changes.

[b] Excluding alcoholic beverages.

[c] Effects of price increase of 1980.

[d] Derived from index of nominal money income and real income.

[e] Fuel. For Romania, an index for clothing is also available which shows index numbers of 100.0, 100.5, 100.4 and 99.9 for the years 1976, 1977, 1978 and 1979 respectively (1975 = 100).

[f] Rent.

basic necessities and of standard quality goods, which account for 80 per cent of retail trade, remained unchanged, as did rents,[157] transport and service tariffs. State subsidies hence were therefore stepped up over the 1976-1980 period (see text table below).

In *Hungary* prices of certain foodstuffs, fuel, electric energy, building materials, shoes and furniture were raised in 1979, though others (tea and coffee) were reduced. The net result was an approximately 9 per cent rise in the over-all retail price index. Two-thirds of this was compensated by various wage and income adjustments from the State budget. Modification of producer prices in Hungary also affected 1980 retail prices, since nearly half of total commodity turnover is realized at more or less free prices. In 1980 new industrial producer prices and freight tariffs were introduced. The price system has also been changed in the construction industry. In agriculture, new state procurement prices for livestock products were introduced in January 1980 and for arable products at the turn of the 1980/1981 financial year. The proportion of free-priced products outside state control has grown to 55 per cent from the previous 45 per cent. However, producer price changes are implemented by the State gradually, according to the individual product and there is, therefore, some lag between changes in producer and retail prices. State subsidies for consumer prices therefore rose to 44 billion forints in 1979, 3 billion more than in the preceding year, and were equivalent to 14 per cent of total annual retail trade turnover.

In *Poland* the consumer price index went up by 10 per cent in 1980 compared with rates of 8.1 and 7.0 per cent in 1978 and 1979 respectively. Food prices increased faster than those of non-food products. Supply and income distribution problems continue to be directly linked with retail trade price subsidies. In 1980 over 500 billion zlotys were earmarked to cover these subsidies and also the subsidization of the below cost provision of various utilities and services. These sums equalled some 40 per cent of State budgetary expenditure. Food, rents, electricity, gas and fuel are the main items receiving a subsidy. In 1981, total food subsidies will amount to 228 billion zlotys or nearly 40 per cent more than in 1980. Meat, dairy and cereal products, sugar and fish are the most heavily subsidized items.

In 1979 a price support of 37.40 zlotys was paid per kilogram of meat, to offset the gap between the price paid to the farmer and by consumers. In 1980 the subsidy was about 60 zlotys as compared with an average retail price of 53-55 zlotys per kilogram. One source reports that the price support for butter is around

State subsidies in the German Democratic Republic

(Billion current marks)

	1976	*1977*	*1978*	*1979*	*1980*	*Plan 1981*
Consumer price and tariff subsidies	13.1	13.7	14.2	15.7	16.5	19.8
Housing (including rent) subsidies	4.6	5.4	6.0	6.7	7.0	7.7

Sources: German Democratic Republic Statistical Yearbooks and Plan 1981.

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[157] Rents paid now cover less than one-third of housing costs.

100 zlotys per kilogram, for sugar 15 zlotys and for flour 7.3 zlotys per kilogram.[158]

In *Romania* during the period 1976-1979, the consumer price index went up by 4.9 per cent, but there was a 4.0 per cent rise in 1980 alone.

In the *Soviet Union*, the consumer price index increased by 1.3 per cent in 1979 with an aggregate rise during 1976-1979 of 2.3 per cent. The retail prices of basic foodstuffs and the more important consumer goods have remained unchanged for the last 15 years. During this period there have been no changes at all in the retail prices of bread, meat (including poultry) and vegetable oil, while the prices of butter, sugar, certain kinds of cereal and potatoes have actually fallen somewhat. Prices of vegetables have risen a little, and there have been larger increases in the price of alcoholic drinks, coffee and items produced from cocoa beans. The prices of consumer durables have remained stable. On the whole, non-food consumer goods cost 5 per cent less in 1980 than in 1965. Rents, payments for public utilities, services and public transport fares have remained unchanged. The stability of consumer prices has been supported by budgetary subsidies: about 25 billion roubles a year on purchasing, processing and selling of meat and dairy products; about 6 billion roubles on State housing maintenance and repair; and more than 2 billion roubles for the improvement of urban service.[159]

(iii) Consumer supplies and housing

(a) *Retail trade and supplies of consumer goods*

In most countries of the region retail trade expanded faster than over-all economic growth in 1980 (table 3.5.4) but major problems remain in ensuring supplies of industrial consumer goods and food products. In Czechoslovakia and Hungary, increases in retail trade turnover

TABLE 3.5.4

Turnover of retail trade and services

(*Annual percentage change*)

Country and period	*Total*	*Food*	*Non-food*	*Services*
Bulgaria				[a]
1976	7.3	7.2	7.2	3.5
1977	3.1	1.2	4.6	7.4
1978	3.6	3.1	4.0	−4.5
1979	2.3	0.8	3.5	−0.9
Plan 1980	4.6	. .	. .	. .
1980	6.0*	. .	. .	. .
Plan 1981	4.8	. .	. .	13.2
Czechoslovakia				
1976	2.0	2.2	1.8	. .
1977	1.4	1.2	1.5	. .
1978	3.7	2.7	4.9	. .
1979	3.6	2.4		. .
Plan 1980	3.4	3.3	. .	. .
1980	2.0	. .	. .	. .
Plan 1981	2.3	. .	. .	. .
German Democratic Republic				
1976	4.6	3.5	5.8	. .
1977	4.4	4.0	4.0	. .
1978	3.4	3.4	3.4	. .
1979	3.5	2.8	4.2	. .
Plan 1980	4.0	3.4	4.7	. .
1980	4.3	2.9	5.8	. .
Plan 1981	4.0	3.3	4.6	. .
Hungary				[b]
1976	1.4	3.2	−0.1	6.9
1977	6.2	3.2	8.8	13.9
1978	3.9	2.1	5.5	12.4
1979	1.7	−0.4	3.5	10.9
1980	0.5-1.0	. .	. .	. .
Plan 1981	1.0-1.5	. .	. .	. .
Poland		[c]		
1976	7.2	8.8	5.9	13.7
1977	6.0	1.1	9.3	14.7
1978	1.1	3.1	−1.9	10.6
1979	2.7	4.7	3.0	10.3
Plan 1980	5.2	4.9	5.4	8.7
1980	0.6	−0.9	1.1	2.8
Plan 1981	. .	. .	. .	. .
Romania				
1976	9.0	11.0	9.0	6.1
1977	6.4	3.6	9.2	4.7
1978	12.1	8.7	13.5	14.4
1979	5.4	7.0	3.7	10.6
Plan 1980	9.3	. .	. .	11.6
1980	6.4	6.1	6.8	. .
Plan 1981	6.0	. .	. .	13.2
Soviet Union				[d]
1976	4.6	3.9	5.6	8.0
1977	4.5	3.7	5.3	6.5
1978	3.9	2.9	5.6	8.0
1979	4.1	3.5	4.1	7.7
Plan 1980	5.1	. .	. .	7.3
1980	5.2	. .	. .	7.2
Plan 1981	4.9	. .	. .	6.6
Byelorussian SSR				
1976	4.4	2.9	5.3	9.2
1977	5.8	5.7	6.3	5.1
1978	4.4	4.0	4.8	9.3
1979	5.9	5.3	6.8	7.1
Plan 1980	5.3	. .	. .	6.8
1980	5.3	. .	. .	8.1
Plan 1981	3.7	. .	. .	6.8
Ukrainian SSR				
1976	4.2	3.9	4.2	7.9
1977	4.6	2.9	6.7	7.8
1978	3.7	2.8	4.5	7.9
1979	3.7	2.8	5.0	7.0
Plan 1980	4.8	. .	. .	6.5
1980	4.4	. .	. .	4.5
Plan 1981	. .	. .	. .	5.5

Sources: As for table 3.5.1.

[a] Industrial services only.

[b] Value of services (excluding social services).

[c] Excluding alcoholic beverages.

[d] At 1976 prices.

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[158] Report by the Minister of Finance on the 1981 Budget. *Trybuna Ludu*, 19 December 1980.

[159] *Kommunist*, No. 8, 1980, p. 58.

were below the rates of over-all expansion, and the increase in Poland was low since it was affected by a decline in food supplies. Much attention was paid to private auxiliary farming activity, especially in Bulgaria, Hungary, Romania and the Soviet Union, and also to the development of services, local industries and crafts.

In *Bulgaria* the analysis of January-September volume indices of sales of basic products shows a deceleration for food and a considerable increase in sales of durable goods and other non-food items in 1980. Sales of meat and meat products fell by 6 per cent over the same period of 1979, butter by 2.8 per cent, vegetables by 10.2 per cent and fruit by 10.3 per cent, but the sales of milk and eggs increased by 1.0 and 6.7 per cent respectively. In contrast to most food items, sales of textiles and clothing increased at high rates, and there was some rise in sales of durables. Purchases of food were affected—especially in the last half of the year—by the decline recorded in agricultural ouptut in 1980.

Private plots and auxiliary farming, which provide Bulgaria with 22-25 per cent of its meat production, 50 per cent of eggs and 12-15 per cent of vegetable production, were important contributors to food supplies. A decision in January 1981 by the Council of Ministers established the conditions under which agro-industrial complexes and other agricultural organizations will assume responsibility for encouraging the development of private auxiliary farming to improve food and other farm supplies.

In *Czechoslovakia* the share of industrial consumer goods in total retail sales (52.9 per cent) was slightly below the target for 1980. The share of the consumer goods industry in total industrial production has declined in recent years, but the volume of production has nonetheless increased considerably. In the past 2-3 years, special attention was given to the renovation and reconstruction of capital assets in the consumer goods industry —in particular the wood-working industry.

Production of the various branches of the consumer goods industry
(1970 = 100)

	1975	*1979*
Industry, total	138	168
Textile industry	133	152
Leather, footwear and fur industry	135	153
Glass, porcelain and ceramics	138	173
Wood-working industry	142	177
Clothing industry	127	147

Source: Czechoslovak Economic Digest, No. 1, 1980, p. 43.

In 1980, almost 85 kg of meat and meat products were consumed per capita. Over 90 per cent of the food consumed was home produced.

In the *German Democratic Republic* retail turnover in industrial goods rose by 9.3 per cent and in foodstuffs and luxury articles by 2.4 per cent in the first half of 1980. For the year as a whole, retail trade turnover increased by 4.3 per cent, of which industrial consumer goods by 5.8 per cent.

A total of 5,900 permits have been issued since 1976 to individuals to continue trading or to open new businesses on a commission basis. About half the new permits were for restaurants, ice-cream parlours and coffee shops. There are about 26,000 such concessions, private retailer outlets and restaurants, in operation. In 1979 commission business and private retailers had a turnover of 8 billion marks.

In *Hungary* retail trade turnover lagged behind 1979 performance in real terms. At the beginning of 1980 purchases of building materials, durable consumer foods and some clothing items were higher than usual. As a result of the measures taken to increase stocks of goods, shortages eased and by late August commercial stocks were 10 per cent higher than at the same time a year earlier. Basic supplies, such as foodstuffs, have flowed steadily. Clothing stocks have augmented gradually, but the choice of good quality knitwear and stockings was unsatisfactory. Following the changes in relative consumer price relationships, the consumption of meat and meat products has slightly decreased, while that of poultry, dairy products and bacon has increased. Imported consumer goods account for 19 per cent of goods supplied to the population.[160] At present 75-80 per cent of total agricultural production is consumed at home. During 1976-1980, improvements in quality and choice were accompanied by a per capita meat consumption increase from 68.5 to 78 kg and consumption of dairy produce, excluding butter, rose from 126 to 157 kg. Investment policy in future is intended *inter alia* to bridge the gap between agricultural production and the processing capacity of the food industry.

New consumer credit regulations were introduced on 1 February 1980. Credits will be made available only for goods priced at over 1,500 forints instead of 1,000 as before. The minimum monthly repayment is to be doubled to 300 forints. From 1 January 1981, new regulations for the management of some retail trade and catering establishments came into force. The smaller retail and catering outlets are to be granted managerial independence. After having paid the lump sum stipulated by the contract to the enterprise, the manager is committed to pay a fixed amount to his employees. The residual is the manager's gross income. The change is expected to reduce administration costs and improve standards of service.

In *Poland* the gap between actual demand and supplies increased to 40-50 billion zlotys following wage and pension increases in the second half of the year. In order to offset this the government has carried out a detailed examination of the production possibilities of individual economic ministries with a view to increasing production and reducing shortages. The maximum value of additional supplies is estimated to be about 18 billion zlotys. In the short term, imports of consumer goods and food have been increased, in particular meat from eastern and western countries. Additional deliveries of consumer goods and some raw materials from the Soviet Union in the last months of 1980 included 500,000 tons of wheat. Extra goods were delivered by Czechoslovakia totalling more than 50 million foreign currency zlotys. The German Democratic Republic will increase consignments of food and other goods. Sizeable purchases of foodstuffs have also been made on western markets, where Poland bought 50,000 tons of meat, 50,000 tons of rice, as well as fats and butter, cheese, tomato paste, olive oil, tea, lemons and citrus fruit juices. Imports have recently accounted for 7.5 per cent of foodstuffs on sale in Poland.

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[160] *Népszabadság*, 21 September 1980.

As a result of emergency measures, supplies of basic foodstuffs during December 1980 were maintained largely at 1979 levels. However, the introduction of a rationing system for some basic foodstuffs, especially meat, has been discussed in the country. Plans to develop services and small-scale industry during 1981-1985 are being prepared with a view to further improving the availability and distribution of supplies.

In *Romania* per capita consumption of foodstuffs between 1975 and 1980 grew as follows: meat from 45 to 62 kg; milk from 132 to 180 litres; sugar from 20 to 28 kg; vegetables from 112 to 140 kg; fruit from 42 to 60 kg. Total per capita consumption of food was over 3,000 calories daily in 1980.

In the *Soviet Union* a long-term comprehensive food development programme is to be prepared. It will combine measures to develop agriculture and the branches of industry servicing it, as well as procurement operations, storage, transportation and the industries processing agricultural produce, the food industry and the trade network for food products. The agro-industrial food complex is to be planned, financed and managed as a single entity. Private auxiliary farming, which now produces about 60 per cent of the country's potatoes, about 40 per cent of fruit, berries and eggs, and about 30 per cent of its meat, milk and vegetables, is also to be encouraged.[161]

In March 1980, the Council of Ministers adopted a series of measures for increasing consumer goods production. Ministries and other organizations have been assigned additional tasks for producing goods in short supply. The heavy and defence industries will also be expected to expand the production of consumer goods.

Much attention was paid to developing opportunities for industry to supply local needs. In 1979, local industry produced 10.4 billion roubles worth of various goods. The reconstruction of local factories and their re-equipment with modern machinery is to be undertaken.

During the 1981-1985 plan period, the production of consumer goods will increase faster than that of goods for industrial use (by 27-29 per cent and 26-28 per cent respectively). Retail trade in the state and co-operative sectors will increase by 22-25 per cent. The output of light industry is to grow by 18-20 per cent. This will be concentrated on increasing the production of high-quality goods for which demand is high—particularly such goods as textiles and clothing. The output of household goods will be raised by at least 40 per cent. A substantial, 40-50 per cent enlargement of public service expenditure is also planned for 1981-1985.

Co-operation within the CMEA framework has been extended to the production of consumer goods. The long-term co-operation programme of CMEA member countries for consumer goods production was adopted in 1979. Within this framework, participating CMEA member countries have signed a number of agreements on mutual deliveries of different types of industrial consumer goods. The programme pays particular attention to improving the supply of raw materials and semi-manufactures, especially for the textile, footwear and furniture industries.[162] Agreements were also signed on scientific and technical co-operation to develop new colour television sets and household video recorders, modern types of refrigerators, freezers and automatic washing machines, and basic assemblies and components for these items.

(b) *Housing construction*

In 1980 more new dwellings were constructed in most countries of the region than in 1979, except in Hungary and Poland. In Hungary the annual state plan was overfilled by more than 4 per cent, but in Poland the plan was fulfilled by 68 per cent (table 3.5.5).

During the period 1976-1980 the original five-year plan targets for the construction of new dwellings were largely fulfilled in the German Democratic Republic, Czechoslovakia, Hungary and the Soviet Union (94-104 per cent). In relation to the high targets, results in Bulgaria and Poland indicate fulfilment to the extent of 84-86 per cent, and in Romania 65 per cent (see text table below).

New dwellings constructed in 1976-1980

(*Thousand units*)

	Plan	*Actual*	*Percentage ratio actual : plan*
Bulgaria	420.0	351.5	83.7
Czechoslovakia	661.0[a]	647.1	97.9
German Democratic Republic	550.0	559.4	101.7
Hungary	430.0-440.0	453.0	104.1
Poland	1 575.0	1 358.2	86.2
Romania	1 291.0	840.8	65.0
Soviet Union	11 000.0	10 336.0	94.0

Sources: As for table 3.5.1.

[a] The sum of the 1976-1980 annual plan targets.

In *Hungary* the second 15-year housing programme, covering the period 1976-1990, calls for the construction of 1.2 million flats (of which 70-75 per cent will be financed from private sources—some 12-15 per cent more than in the previous 15-year period). The Hungarian government thus continues to attach considerable importance to privately financed construction: financial assistance extended to private housing amounts to at least 20-22 billion forints annually.

On 1 January 1981, new regulations to facilitate exchanges of dwellings and to rationalize housing management finance were introduced, and a decision was adopted concerning the sale—on long-term lease only—of State land for house building.

In the *Soviet Union* two million modern apartments and individual houses with a total floor space of 108 million m^2 were constructed in 1980; of this space, 30 million m^2 are situated in rural areas. The living conditions of about 10 million people were improved. A total of 530-540 million m^2 housing space is expected to be com-

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[161] *Voprosy ekonomiki*, No. 6, 1980, p. 118.

[162] Co-operation in specific areas is illustrated by a general agreement on expanding capacities for the production of upholstery. The agreement will involve an expansion of production capacities by Bulgaria, Romania and Czechoslovakia, who are to increase exports to the Soviet Union, Poland and Mongolia.

TABLE 3.5.5

New dwellings constructed

Country and period	New dwellings (thousands)				Units per 100,000 inhabitants	Average size of dwelling in square metres
	Total	State	Co-operative	Individual[a]		
Bulgaria						
1976 . .	67.6	37.2	30.4		770	62.9
1977 . .	75.9	40.5	35.4		860	61.9
1978 . .	67.8	34.0	33.8		770	60.2
1979 . .	66.2	32.2	33.0		750	59.2
Plan 1980	79.5	..	..		..	..
1980 . .	74.0	..	..		838	..
Plan 1981	80.0	..	..		..	..
Czechoslovakia						
1976 . .	132.5	59.8	33.1	39.6	888	47.5
1977 . .	134.8	55.4	39.3	40.1	888	47.5
1978 . .	129.3	51.2	40.4	37.9	854	48.5
1979 . .	122.7	47.7	39.3	35.7	805	..
Plan 1980	141.0	..	..	..	..	..
1980 . .	127.8	49.5	46.0	32.3	825*	..
Plan 1981					..	
German Democratic Republic [b]						
1976 . .	103.1	54.6	37.4	11.1	615	60.8
1977 . .	106.8	54.5	40.5	11.8	637	61.2
1978 . .	111.9	56.9	34.1	11.9	668	61.7
1979 . .	117.4	68.2	37.3	11.9	701	61.3*
Plan 1980	116.1	..	..	10.7	..	..
1980 . .	120.2	..	..	13.0	718*	..
Plan 1981	117.0	..	..	12.7	..	..
Hungary						
1976 . .	93.9	32.4	61.5		888	64.6
1977 . .	93.4	34.0	59.4		879	64.7
1978 . .	88.2	31.7	56.5		827	65.0
1979 . .	88.2	34.1	54.1		827	65.0*
Plan 1980	82.0	..	..		..	..
1980 . .	89.3	..	..		835	..
Plan 1981	76.0-78.0	23.0-24.0	53.0-54.0		..	..
Poland						
1976 . .	273.2	54.1	155.6	63.5	795	58.2
1977 . .	275.9	49.6	152.7	73.6	795	61.0
1978 . .	292.0	48.8	168.9	74.3	835	62.2
1979 . .	284.2	58.3	153.8	72.1	806	63.7
Plan 1980	340.0-346.0	..	..	..	..	..
1980 . .	232.9	39.0	123.9	70.0	652	..
Plan 1981					..	
Romania				[c]		
1976 . .	139.4	112.4		27.0	650	72.8
1977 . .	145.0	125.4		19.6	670	74.0
1978 . .	166.8	151.7		15.1	763	75.0
1979 . .	191.6	179.2		12.3	860	74.5
Plan 1980	250.0	..		..	..	..
1980 . .	198.0	186.0		12.0	888	..
Plan 1981	185.0	.. [d]		..	..	..
Soviet Union						
1976 . .	2113	1720		393	816	50.3
1977 . .	2111	1726		385	808	51.1
1978 . .	2080	1703		377	796	51.3
1979 . .	1932	1571		361	737	52.5
Plan 1980	2120	..		..	..	51.5
1980 . .	2000	..		..	750	54.0
Plan 1981	2115	..		..	..	51.5

Sources: As for table 3.5.1.

[a] Financed from state credit and from individual resources.

[b] Excluding modernization of dwellings.

[c] Private apartments with no state assistance.

[d] According to the 1981 plan 75,000 dwellings will be financed wholly or partially by the State.

pleted in 1981-1985. The present scale of housing construction will be maintained in all subsequent years of the eleventh five-year plan (1981-1985). Housing construction will moreover be closely co-ordinated with over-all output planning in order to facilitate manpower redeployment; it was pointed out that the development of Siberia, the Far East and the Non-Black Earth Zone, as well as the manpower supply in existing enterprises, will be largely determined by the availability of good housing. A long-term (1980-1990) programme of wooden housing construction in the countryside has been launched recently; this programme provides for the development of industrial housing construction methods.

(iv) Consumption

The share of consumption in distributed NMP increased to a greater or lesser extent in every country during 1976-1979. In Czechoslovakia, the German Democratic Republic and the Soviet Union the rise in the share of consumption was relatively small compared with Bulgaria, Hungary and especially Poland (table 3.5.6). Short-term departures from the trend—for example in Hungary in 1978—were associated with intensive investment activities. There is a fairly close relationship between peaks in NMP growth rates and a relative drop in the share of consumption and vice versa.

TABLE 3.5.6

Allocations for domestic use

(*Percentage of distributed NMP*)

Country and period	*Consumption*			*Net capital formation*		
	Total	*Personal*	*Social*	*Total*	*Net fixed capital formation*	*Changes in stocks*
Bulgaria						
1976 . .	71.0	49.2	21.8	29.0	19.7	9.3
1977 . .	73.6	51.3	22.3	26.4	18.6	7.8
1978 . .	76.1	53.2	22.9	23.9	19.2	4.7
1979 . .	75.8	53.0	22.8	24.2	21.4	2.8
Plan 1980	73.0-74.0	. .	. .	26.0-27.0	. .	. .
1980 . .	. .	. .	. .	. .	. .	. .
Plan 1981	74.5	. .	. .	25.5	. .	. .
Czechoslovakia						
1976 . .	74.3	54.7	19.6	25.7	20.3	5.4
1977 . .	75.8	55.3	20.5	24.2	21.8	2.4
1978 . .	76.3	55.7	20.6	23.7	21.4	2.2
1979 . .	76.4	54.8	21.6	23.6	19.4	4.2
German Democratic Republic						
1976 . .	77.1	66.2	10.9	22.9	19.5	3.4
1977 . .	77.0	65.9	11.1	23.0	19.5	3.5
1978 . .	78.6	67.3	11.3	21.4	19.6	1.8
1979 . .	80.0	68.8	11.2	20.0	19.4	0.6
Hungary						
1976 . .	74.2	64.4	9.8	25.8	20.0	5.8
1977 . .	73.0	63.4	9.6	27.0	18.2	8.8
1978 . .	69.7	59.8	9.9	30.3	18.9	11.4
1979 . .	76.0	65.0	11.0	24.0	20.8	3.2
Plan 1980	77.6*	. .	. .	22.4*	. .	. .
1980 . .	78.0	66.7	11.3	22.0	. .	. .
Plan 1981	81.6*	. .	. .	18.4*	. .	. .
Poland						
1976 . .	65.9	55.2	10.7	34.1	26.8	7.3
1977 . .	68.8	57.3	11.2	31.5	27.2	4.3
1978 . .	69.2	57.4	11.8	30.8	26.1	4.7
1979 . .	73.8	61.4	12.4	26.2	23.2	3.0
Plan 1980	76.5	. .	. .	23.5	17.0-18.0	5.5-6.5
1980 . .	77.7	64.6	13.1	22.3	19.6	2.7
Plan 1981	82.9*			17.3*	14.0*	3.3*
Soviet Union						
1976 . .	73.0	. .	. .	27.0	. .	. .
1977 . .	73.2	. .	. .	26.8	. .	. .
1978 . .	73.2	. .	. .	26.8	. .	. .
1979 . .	75.1	. .	. .	24.9	. .	. .
1980 . .	75.1	. .	. .	24.9	. .	. .

Sources: As for table 3.5.1.

TABLE 3.5.7

Structure of family expenditures

(*Percentage distribution, total expenditure = 100*)

A: Workers' families. B: Peasant families. C: Non-manual workers' families.

	Food			*Textiles, clothing, footwear*			*Consumer durables*			*Maintenance of dwellings*			*Savings*		
	A	*B*	*C*	*A*	*B*	*C*	*A*	*B*	*C*	*A*	*B*	*C*	*A*	*B*	*C*
Bulgaria											[a]				
1970	33.9	34.8	29.1	9.6	9.0	9.6	4.7	4.5	4.3	8.1	7.2	6.1	11.2	12.2	12.9
1975	32.0	33.6	28.8	9.2	7.4	9.6	4.2	4.2	4.3	6.2	6.6	5.5	13.4	14.3	12.5
1978	32.5	37.1	29.7	9.6	8.2	9.6	4.1	3.8	4.0	6.1	6.8	5.7	10.1	8.0	10.3
1979	32.2	38.4	29.8	9.5	7.8	10.4	4.3	3.5	4.2	5.8	7.4	5.6	9.6	6.9	10.1
Czechoslovakia															
1970	33.3	26.4	29.5	9.7	9.4	9.2	4.3	5.7	3.9	..	..	..	9.2	17.2	9.9
1975	29.8	27.1	26.7	9.1	10.3	9.1	5.0	6.7	5.2	..	..	..	10.2	15.2	10.7
1978	27.4	26.5	25.1	9.6	11.1	9.7	5.0	6.6	4.9	..	..	..	10.3	13.6	10.7
1979	27.3	26.0	24.5	9.7	10.0	11.1	5.1	6.7	5.0	..	..	..	10.4	13.6	10.6
German Democratic Republic											[c]			[d]	
1970	27.1[b]	28.2	..	12.3	12.7	..	16.5	16.5	..	4.5	3.0	..		8.5	
1975	28.6	26.9	..	12.6	12.6	..	20.2	20.5	..	4.3	2.7	..		7.3	
1978	27.4	26.5	..	12.8	12.4	..	21.9	22.7	..	3.9	2.3	..		6.9	
1979	27.1	26.2	..	12.8	12.3	..	22.1	21.2	..	4.0	2.3	..		5.3	
Hungary														[e]	
1970	33.8	32.8	27.7	13.9	11.0	14.2	7.7	6.7	8.9	10.4	8.5	9.5		5.6	
1975	29.1	26.9	24.0	12.9	10.4	12.4	9.5	7.6	11.1	10.0	8.2	11.9		6.0	
1978	28.9	27.0	24.8	13.4	8.9	10.8	9.9	6.7	9.0	11.2	7.8	11.3		7.2	
1979	28.7	26.2	24.5	11.7	5.6	10.1	9.2	6.8	8.9	11.0	8.2	12.7		4.7	
Poland															
1970	46.7	53.9	..	15.7	16.0	..	14.8	..	..	14.8	..	..	..	..	..
1975	41.1	49.6	..	15.4	12.5	..	10.4	15.8	..	15.5	12.4	..	..	..	..
1978	41.1	44.0	..	14.4	12.6	..	15.5	23.6	..	15.5	13.9	..	..	..	..
1979	40.9	42.7	..	14.4	12.3	..	15.9	25.1	..	15.3	13.9	..	..	..	..
Romania															
1978	45.8	63.3	..	18.9	14.1	..	11.0	6.4	..	14.1	11.0	..	..	..	..
1979	45.7	63.1	..	17.6	13.7	..	11.4	6.6	..	14.7	11.2	..	..	..	..
Soviet Union										[c]	[f]				
1970	35.7	40.4	..	15.5	15.7	..	5.8	4.9	..	2.7	1.8	..	4.1	6.4	..
1975	32.9	37.1	..	15.4	15.7	..	6.5	5.9	..	2.7	1.6[g]	..	6.3	6.0	..
1978	32.0	34.4	..	15.7	15.6	..	6.6	5.9	..	2.7	1.8	..	7.2	7.9	..
1979	31.8	35.7	..	15.6	15.6	..	6.6	6.2	..	2.7	1.6	..	6.6	8.9	..

Sources: As for table 3.5.1.

[a] Including rent, cost of fuel and electricity and housing.

[b] Data include employees' and workers' families together.

[c] Rent, fuel and electricity only.

[d] Growth of total savings of the population.

[e] Per capita savings of the total population.

[f] Fuel and electricity only.

[g] 1976.

In Bulgaria, for instance, in 1978 a deceleration in NMP growth was matched by a 2.5 percentage point increase in the share of consumption.

Personal consumption in 1979 rose at a high rate in Hungary compared with total consumption. The same was true for Poland where its share rose from 57.4 per cent in 1978 to 61.4 per cent in 1979. In the German Democratic Republic, where personal consumption already accounts for a bigger share of total consumption than in any other country in the region, the proportion rose to a record 68.8 per cent in 1979. Of the five countries which publish data on the distribution of net material product, social consumption in Bulgaria and Czechoslovakia accounts for some 20-30 per cent of total consumption. In the other three countries greater stress has been placed on personal consumption, leaving a share of 10-12 per cent for social purposes.

Table 3.5.7 shows the structure of *family expenditures.* In the last edition of the *Economic Survey of Europe* inter-country comparability problems were reviewed and some necessary adjustments were made to the five main expenditure categories. The share of food in family expenditure decreased generally (except in Bulgaria, in the case of peasant and non-manual workers' families). Countries where food expenditures are highest relative to total expenditure are Romania—which recorded 45.7 per cent for workers' families and 63.1 per cent for peasant families in 1979; and Poland—where 42.7 per cent in the case of peasant families, and 40.9 per cent in the case of workers' families, of total income was spent on food in the same year.[163] The lowest share is found in Hungarian non-manual workers' families (24.5 per cent in 1979). There are no marked differences throughout the region between patterns of spending on food by workers and peasant families. There is a difference, however, between workers' and non-manual workers' families, ranging from 2.4 percentage points in Bulgaria to 4.2 points in Hungary in 1979. A considerable number of workers and peasants, however, have dual incomes, i.e. they are employed both in a non-agricultural branch of agriculture, or in industry or other non-agricultural sectors, but also continue to cultivate private plots producing goods for their own consumption or for sale. Along with pensioners they display a distinctive consumption pattern, with similarly distinctive consumption and income elasticities.[164]

Textiles, clothing and footwear are less important elements in family budgets than food. Their share remained more or less unchanged in most countries and occupational groups during the whole period, apart from small temporary fluctuations. In Poland, however, there was a 1.3 and a 3.7 percentage point drop in the relative share of spending on these items by workers' and peasant families respectively. The shares of expenditure on consumer durables in the total show continuous growth with the exception of Bulgaria: such variation reflects above all the difficulty to which differences in statistical coverage give rise. Discrepancies appear clearly when the 4-5 point share in Bulgaria is compared with the corresponding 6-7 points in the Soviet Union or the German Democratic Republic's 20-22 points.[165]

Maintenance of dwellings accounts for a 2-7 per cent share of the total in Bulgaria, the German Democratic Republic and the Soviet Union, and a substantially higher 10-15 per cent share in Hungary, Poland and Romania in 1979. There were no major changes in 1979 over 1978. Differences between the three groups were maintained in 1979, but in every country agricultural employees spent less in relative terms on the maintenance of dwellings than other groups. This can be explained by different housing patterns, the relative availability of other facilities, heating and also differences in the pattern

TABLE 3.5.8

The structure of the social consumption fund

(*Percentages*)

Country and period	*Pensions and social benefits*	*Education and culture*[a]	*Health*	*Other*[b]
Bulgaria				
1970	52.3	25.0	15.2	7.5
1975	49.1	26.0	16.0	8.9
1978	44.4	23.1	14.9	17.6
1979	44.2	22.6	15.3	17.9
Czechoslovakia				
1970	57.6	18.7	16.4	7.3
1975	54.3	20.2	17.2	8.3
1978	48.4	21.0	15.6	15.0
1979	48.6	21.1	15.5	14.8
German Democratic Republic				
1970	44.2	26.8	12.9	16.1
1975	43.4	25.0	13.2	18.4
1978	36.9	22.7	17.1	23.3
1979	36.1	22.5	17.8	23.6
Hungary				
1970	44.9	23.0	21.7	10.4
1975	52.0	21.0	19.0	8.0
1978	55.9	22.0	14.2	7.9
1979	57.0	21.0	14.0	8.0
Poland				
1970	39.2	27.4	24.7	8.7
1975	41.3	25.9	25.9	6.9
1978	42.9	23.5	24.3	9.3
1979	44.1	..	..	..
Soviet Union				
1970	34.9	29.3	15.6	20.2
1975	36.1	28.7	14.1	21.1
1978	37.1	27.6	14.7	20.5
1979	37.2	27.5	14.7	20.6

Source: CMEA Yearbooks, 1976, p. 45 and 1980, p. 47.

[a] Including student grants.

[b] Including housing maintenance expenditures.

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[163] Food consumption is estimated for peasant families by taking into account the consumption of own-produced goods at market prices.

[164] In the Hungarian household statistics, families with dual incomes spent 27.2 per cent on food of which the share (in terms of total consumption) of own-produced goods was 10.8 percentage points. The latter share for peasant families was 11.5 per cent in 1979. Pensioners' spending on food was the highest of any group in Hungary in 1979 at 35.3 per cent; this was also higher in absolute terms than any other group, while other expenditures (with the exception of dwelling maintenance) were below those for other groups.

[165] The explanation may vary from different prices to the exclusion or inclusion of motor cars and agricultural machinery and equipment used for private purposes.

of private house ownership compared with non-agricultural employees.

Savings are not included in family budgets in Hungary or Poland. During recent years, rates (and in some cases shares) of savings decreased, but the annual changes are not large. Rates of savings in total expenditures in the German Democratic Republic dropped by 1.6 percentage points in 1979 over 1978, while the corresponding figure for Hungary was 2.5 percentage points (7.2 per cent versus 4.7 per cent in 1979).

Social consumption (table 3.5.8) increased along with total consumption but its share remained largely unchanged during the whole period. There are minor upward movements in Poland, and some decreases in the German Democratic Republic and Hungary in individual years. Pensions and social benefits are the biggest component of the social consumption fund, shares ranging between 37-57 per cent in different countries. In Bulgaria and the German Democratic Republic, the share of pensions and social benefits is bigger in terms of distributed NMP (not shown in this table) in comparison with other countries. Rates of growth of social consumption increased by 4-6 per cent in Bulgaria with some slowdown in 1977 and 1978. In Czechoslovakia after a 3 point fall in the rate of increase in 1978, the rate of growth of social consumption increased by 6.1 per cent in 1979. This is particularly high given the modest 1.1 per cent rate of growth of total consumption. From 1976 there has been a continuous slowdown in the increase of social funds in the German Democratic Republic. In Hungary, following a 13.3 per cent rate in 1978 and a markedly lower 5.5 per cent in 1979, preliminary information suggests a rather modest increase for this item in 1980; a similar movement is expected for 1981. Trends were similar in Poland until 1979.

The sources of *supply of commodities for consumption* are domestic production and imports of foodstuffs and consumer goods. Production of agricultural goods is shown in table 3.2.1, and output of industrial consumer goods is represented by textiles, clothing and food processing (table 3.3.3). According to the CMEA classification, the growth of production of industrial consumer goods during 1976-1979 was higher than that of personal consumption—a phenomenon caused by the allocation of a proportion of such goods to both social consumption and exports. Romania increased the production of food and consumer goods by 11.1 per cent annually over the same period, while Hungary did so by only 4.8 per cent; nevertheless, both figures regularly exceeded growth in consumption and in retail trade. The share of imported foodstuffs and consumer goods in total imports was around 9 per cent on average in Bulgaria between 1976-1979. But Bulgaria's exports were some 3.4 times higher than its imports in the same commodity groups. The situation of Czechoslovakia is different since it is a net importer of goods in these groups; it also recorded a considerably higher share of foodstuffs and consumer goods in total imports than the above two countries—on average, almost 16 per cent. The German Democratic Republic and the Soviet Union are also net importers of these commodities. Despite their high 33-35 per cent share of the Soviet Union's total import bill (which however is small relative to total consumption) the German Democratic Republic imported the most foodstuffs and consumer goods in relative terms—a 20.3 per cent share of its total imports in 1976 and 17.4 per cent in 1979. The position of the German Democratic Republic is rather close to that of Czechoslovakia, namely a considerable import surplus of foodstuffs matched by a surplus in exports of non-food consumer goods.

6. FOREIGN TRADE

(i) General trends

Measured in value terms, the trade of east European countries and the Soviet Union continued to progress in 1980 though export and import trends diverged somewhat (table 3.6.1). The export growth rate doubled between 1978 and 1979 (to 16 per cent) but declined slightly during January-September 1980. In contrast, import growth accelerated in January-September 1980 compared with the previous two-year period (from some 11 to nearly 15 per cent). Trade turnover for 1980 as a whole increased by some 12 per cent (table 3.6.3). Thus, exports grew more slowly than imports in 1978 but faster in 1979, and at almost equal rates in January-June 1980.

TABLE 3.6.1

Growth in trade of the east European countries and the Soviet Union

(Percentage change over the same period of the previous year and surpluses in billion US dollars)

	Exports				*Imports*			
	1977	*1978*	*1979*	*1980 (9 months)*	*1977*	*1978*	*1979*	*1980 (9 months)*
Total trade								
Value	15.1	7.9	16.1	14.9	8.1	10.8	10.8	14.6
Prices	5.5	2.5	11.0	12.7	4.6	1.6	6.0	12.6
Volume	9.1	5.3	4.6	2.0	3.4	9.0	4.8	1.8
Terms of trade	0.9	0.9	4.7	0.0	..	..	..	..
Trade elasticity coefficient	1.90	1.15	1.92	0.0	0.71	1.96	2.00	..
Surplus	..	..	1.9	2.0[a]	2.0	5.0	..	..
of which:								
Intra-eastern area trade								
Value	14.9	11.7	8.0	8.3	..	..	..	..
Prices	5.4	3.0	2.2	8.2	..	..	..	..
Volume	9.0	8.5	5.7	0.0	..	..	..	..
Trade elasticity coefficient	1.88	1.85	2.37	0.0	..	..	..	..
Trade with industrial market economies								
Value (eastern sources)	10.0	5.2	32.6	29.0	1.3	8.5	14.0	15.0
Value (western sources)	10.7	14.0	35.0	29.0	0.7	18.0	18.0	15.0
Prices (western sources)	7.2	9.8	37.9	27.0	8.1	7.2	11.2	15.0
Volume	3.2	3.8	−2.1	1.5	−6.8	10.0	6.1	0.0
Terms of trade	−0.8	2.4	24.0	10.4	..	..	..	..
Trade elasticity coefficient	0.67	0.83	< 1	..	−1.51	2.17	2.54	0.0
Surplus (eastern sources)	..	..	..	..	6.7	8.8	4.9	..
Trade with developing countries								
Value	30.8	6.5	12.4	14.7	20.2	2.6	24.1	47.3
Prices	12.1	12.1	7.0	5.7	11.6	0.6	28.0	29.7
Volume	16.7	−5.0	5.0	8.5	7.7	2.0	−3.0	13.6
Terms of trade	0.5	11.1	−16.0	−18.5	..	..	..	..
Trade elasticity coefficient	3.48	< 1	2.08	..	1.60	0.43	< 1	..
Surplus	3.5	4.6	4.4	..	..	..	..	..

Source: National statistics. (For western sources see table 3.6.5.)

Note: Calculations are made in the following way: (*a*) total trade: value and volume indexes are taken from nationa statistics of east European countries and the Soviet Union and they have been weighted on the basis of individual countries' shares in the total trade of the region expressed in roubles; prices have been derived from the above value and volume indexes; (*b*) intra-CMEA trade: value indexes are taken from national statistics; prices are calculated on the basis of Soviet and Hungarian data which for certain years were slightly adjusted to eliminate discrepancies; volume indexes are derived from the above value and price indexes; total intra-CMEA exports and imports are not always identical because of accounting discrepancies, imports tending to be higher than indicated here; (*c*) trade with industrial market economies: value and price indexes are calculated on the basis of UN data and volumes are derived as described in Part B of the *Economic Bulletin for Europe*, vol. 31, no. 1; (*d*) trade with developing countries; value indexes are taken from national statistics, volume and price indexes are calculated as residuals; (*e*) regional balances do not always add up to the total because of discrepancies in intra-CMEA trade; balances in the trade among eastern countries and Asian Socialist countries are not shown above.

[a] Nine months at annual rates.

The trade balance of the east European countries and the Soviet Union changed from a deficit of $5 billion (current dollars) in 1978 to a surplus of nearly $2 billion in 1979, and probably remained at about the same level in 1980.

The bulk of trade growth in 1979 and 1980 was due to prices, which seem to have risen at accelerated rates. Export and import prices increased in 1979 by approximately 11 and 6 per cent respectively (compared with nearly 2 and 3 per cent respectively in the preceding year). This implies volume growth rates for 1979 of nearly 5 per cent for both exports and imports. In both cases this was less than in 1978—especially for imports for which growth fell by one half.

Price data covering January-September 1980 are still scarce and estimates of volume growth rates of trade in the region are therefore approximate. In fact, only Hungary provides regular information on foreign trade prices; these are expressed in Hungarian foreign exchange accounting units for the country's trade with the rouble and non-rouble areas. To derive values in roubles and dollars, these prices were first adjusted upwards to take account of revaluations of Hungarian foreign exchange accounting units—by 14.3 per cent against the rouble and nearly 12 per cent against the dollar. The resulting price indices—which show a rise of nearly 13 per cent for both exports and imports in January-September 1980—were then applied to changes in the value of foreign trade for all other countries in the eastern area. This procedure indicates a deceleration in the volume growth rates of both exports and imports to roughly 2 per cent during January-September 1980—or less than half the rates reported in 1979. Though the estimate may include some downward bias, it seems clear that growth rates of both exports and imports were a great deal smaller in 1980 than in 1979.

Thus the volumes of exports and imports appear to have grown at decelerating rates in January-September 1980, as well as in 1979, the growth rates of both flows having been rather similar.

The switch in the aggregate trade balance of the eastern countries from a deficit position in 1978—as well as in some earlier years—to a surplus thereafter was greatly assisted by changes in their terms of trade. The indicator improved by nearly 1 per cent in 1978 and by a further 5 per cent in 1979, a total of some 6 per cent over the two years. There was probably little change during January-September 1980. Past improvements took place primarily in eastern trade with the western industrialized countries—for which the eastern terms of trade may have improved by 24 per cent in 1979 and by perhaps another 10 per cent in January-September 1980. In contrast, the index vis-à-vis developing countries may have deteriorated by roughly 15 per cent in both 1979 and January-September 1980. The positive over-all terms of trade effect arose from a rapid rise in the price of Soviet oil exported to western industrialized countries.

Slower growth rates in the volume of eastern countries' trade over the last two years primarily reflected the deceleration of their intra-area trade from nearly 9 per cent in 1978 to 6 per cent in 1979; these flows grew slowly, if at all, during January-September 1980. A similar trend was registered in the volume of eastern imports from western industrialized countries. The nearly 4 per cent growth of eastern export volumes to this area in 1978 was reversed in 1979, when a fall of 2 per cent took place, but this was approximately made good in January-September 1980. With regard to eastern trade with the developing countries (including overseas socialist countries), it appears that the volume of eastern trade rose very fast and at an accelerated rate over January-September 1980, hence becoming the eastern countries' most dynamic volume trade flow.

Information on *trade by commodities* in 1980 is still scarce. Data are available only for four countries (Bulgaria, Czechoslovakia, Hungary and Poland) and in current prices (table 3.6.2). The slowdowns in eastern countries' export and import growth appear to have fallen mainly on trade in machinery. In all four countries the import values of machinery either grew much more slowly than total imports, or—as in Hungary—they declined sharply in absolute terms. With the possible exception of Czechoslovakia, these imports declined moreover in volume terms. Similar trends were apparent in the case of imports of foodstuffs—except in Poland, where they rose rapidly in value and in volume. The growth of industrial materials imports was the most dynamic eastern import commodity flow in value terms and there may have been some growth in volume except in Hungary. Again with the exception of Hungary, import values of manufactured consumer goods rose fast.

The above commodity pattern of eastern import growth was strongly affected by eastern countries' policy objectives to redress foreign trade deficits. The impact of these policy objectives fell primarily on capital formation, which is both import intensive and import elastic. In contrast, industrial materials imports enjoyed priority everywhere, reflecting the attention paid to the maintenance of certain minimal growth rates of industrial output which also is import intensive.

Machinery was also the least dynamic item in the growth of eastern export values; indeed there was a substantial fall in Hungarian and Polish volumes. Exports of industrial materials were the most dynamic eastern export flow. Certain other exports declined (Hungarian consumer goods and Polish foodstuffs)—which reflected slack foreign demand for capital goods and also the pressing need for eastern countries to increase exports of as broad a range of other export items as possible.

There were also large variations in the growth rates of total *exports and imports by individual countries* in the eastern trading area (table 3.6.3). Performance in all countries was, however, strongly affected by policies to redress trade balances. There was a noticeable tendency for individual countries to redistribute their trade imbalances to other areas—in particular deficits on east-west flows were re-allocated towards eastern intra-regional trade.

In the Soviet Union exports in 1979 rose by nearly 19 per cent and imports by roughly half that; the trade surplus rose sharply to nearly $7 billion (from $1.6 billion in 1978). In January-September 1980 imports increased at a faster pace than exports but both rose at record rates (18-19 per cent); the trade surplus was reduced to some $5 billion (9 months figures at an annual rate). Prices in Soviet trade increased rapidly and the Soviet terms of trade improved. Similar developments although at lower growth rates, were reported for Poland. The Polish deficit was reduced substantially in 1979 (to $1.3 billion) but increased to over $1.8 billion in 1980. Soviet trade

TABLE 3.6.2

Trade of selected east European countries and the Soviet Union by major regions and commodity groups (January-September 1980)

(Percentage change over the same period of 1979)

	Bulgaria	Czecho-slovakia	Hungary	Poland (10 months)	Soviet Union	German Democratic Republic (12 months)
Exports to:						
CMEA countries	12.8	11.5	−1.7	−1.2	10.9	—
Developed countries	20.0	28.5	14.4	18.7	34.0	27.0
Developing countries	35.0	21.4	9.0	21.8	11.6	36.0
Total	16.9	16.0	4.9	7.6	17.4	..
Machinery and equipment	15.7	10.6	−2.7	2.2	..	..
Raw materials and semi-finished products	27.7	26.7	17.5	20.1	..	..
Foodstuffs	9.5	18.2	5.8	−4.7	..	..
Consumer goods	16.9	16.5	−2.6	6.2	..	..
Imports from:						
CMEA countries	5.6	7.9	−8.2	13.0	10.3	..
Developed countries	31.0	16.3	4.2	1.7	19.2	90.0*
Developing countries	31.0	19.0	14.5	35.0	56.8	..
Total	10.2	10.7	−1.1	10.9	18.9	..
Machinery and equipment	3.2	8.6	−15.1	6.4	..	..
Raw-materials and semi-finished products	16.4	13.5	4.0	16.0	..	..
Foodstuffs	−9.0	7.7	−6.3	16.2	..	..
Consumer goods	14.7	9.7	0.2	15.3	..	..

Source: As for table 3.6.1.

TABLE 3.6.3

Trade of individual east-European countries and the Soviet Union

	Annual percentage change									Trade balance in million US dollars		
	Exports				Imports							
	1978	1979	1980 (9 months)	Plan 1981	1978	1979	1980 (9 months)	Plan 1981	Turnover 1980	1978	1979	1980[a]
Bulgaria	10.4	15.3	16.5	8.3[b]	12.2	8.3	11.2	..	14.1	−172	353	690
Czechoslovakia	9.4	10.3	16.0	..	7.7	11.3	10.7	..	11.0	−748	−1 023	−200
German Democratic Republic	10.5	13.5	..	16.0[b]	0.8	11.3	..	..	10.0	−1 305	−1 151	..
Hungary	0.9	17.2	4.9	7.5-8.0	12.6	2.6	−1.1	2[a]	..	−1 693	−753	−610
Poland	9.7	12.2	3.4[c]	..	4.9	6.6	6.1[c]	..	4.8	−1 883	−1 335	−1 850
Romania	5.6	18.1	24.6[c]	21.0	16.5	20.1	21.1[c]	0.0	23.2	−756	−1 191	−1 100
Soviet Union	7.3	18.9	17.4	10.0[b]	14.8	9.6	18.9	..	14.0	1 576	6 926	5 000
Total	7.9	16.1	14.9	..	10.8	10.8	14.6	..	12.4	−4 981	1 902	2 000

Source: As for table 3.6.1

Note: The absolute figures in dollars were obtained by applying the official exchange rate used for statistical purposes as quoted in the *UN Monthly Bulletin of Statistics* and the national sources. Percentage changes are derived from national sources and are based on data in national foreign trade accounting units.

[a] 12 months.

[b] Turnover.

[c] 9 months at annual rates.

growth in 1980 was motivated by the need to reduce the trade surplus, but in Poland developments reflected the need to alleviate supply difficulties. Thus, large Polish repayments of credit were achieved by new borrowing.

Among other CMEA countries for which information is available, the rise of export values in 1980 (January-September) accelerated somewhat in Bulgaria and Czechoslovakia (to some 16 per cent), but slowed down sharply in Hungary (to 5 per cent). In the latter country, exports may have even declined in volume terms. An acceleration was reported in the growth of Romanian exports (to 25 per cent) for 1980 as a whole.

The growth rate of import values in 1980 (January-September) accelerated in Bulgaria (to more than 11 per cent), and remained almost the same in Czechoslovakia (also 11 per cent). It declined in absolute terms in Hungary. For the whole of 1980, import growth accelerated also in Romania (to 21 per cent). However, a common feature of trade growth in all these countries in 1980 was a faster growth in their exports than for imports. This was probably also true for the German Democratic Republic.

With regard to trade balances, Bulgaria managed to transform a slight deficit in 1978 into a considerable surplus in 1979 (exceeding $400) and may have raised it slightly again in 1980. Hungary reduced its deficit during this period (to an annual rate of $600 in 1980, based on January-September 1980 figures). A similar movement took place in 1980 with regard to the deficits of the German Democratic Republic. The Romanian deficit increased considerably in 1979 and remained at roughly the same level in 1980. All four of these countries were under the necessity of checking the rise in their indebtedness with a view to repaying credits falling due on an increasing scale. Czechoslovakia slashed its deficit in 1980 to some $200 million from the relatively high level of $1 billion reported in 1979.

Although there was a deceleration in the rate of growth of eastern countries' trade in 1980 in comparison with 1979, the basic elements affecting these flows indicate some acceleration in 1981. In the first instance, the volume growth of the eastern countries' total trade declined to a very low rate in 1980. Moreover, this rate was by far below its long term growth trend. This was the case of intra-eastern area trade in particular. Thus, some return to past rates of expansion is not out of the question. A large part of the import economies in 1980 were managed on the basis of domestic stock drawdowns. These stocks will have to be replenished in line with the upturn in domestic economic activity expected in 1981, and this should stimulate import growth. There is more room to expand imports in 1981 than in the preceding year because eastern countries' east-west trade balances improved by over $2.5 billion in 1980. The Soviet Union now has a considerable surplus on this trade, and this creates favourable conditions for import expansion.

(ii) Intra-eastern area trade

A characteristic feature of the development of trade among eastern countries over the last two years was the relatively moderate expansion in value terms and decelerating growth rates in volume. As noted earlier, the volume of intra-area trade may even have stagnated during January-June 1980 (table 3.6.1). These phenomena can be explained in terms of the slowdown in over-all economic activity which took place in the region, and which may have had both a lagged as well as an immediate impact on mutual trade. The need for individual countries to redress balances in their mutual trade often called for slower rates of growth. Fluctuations also occurred in the growth rates of trade among individual countries—especially between the Soviet Union and its partners. Many of these fluctuations were linked to uneven accelerations in price rises, and to shifts in the terms of trade which tended to disturb mutual trade balances—usually in favour of the Soviet Union. The effects of large shifts in favour of the Soviet Union were mitigated by their transformation into credits, to be repaid by partner countries over several years. Growth rates of bilateral trade were thus often linked to the availability of these credits and to the corresponding repayment schedule. Developments in intra-CMEA trade are therefore determined in the first instance by shifts in the trade balances of individual countries, and then by trends in export and import growth rates as determined by prior mutual agreement on the management of trade balances.

The Soviet export surplus declined from $1.9 billion in 1977 to $0.24 billion in 1978, but rose to over $1.6 billion in 1979. The German Democratic Republic registered a large deficit in 1977 (some $850 million) but it was more than halved in 1978 and turned into a surlpus in 1979 ($650 million). Poland had small deficits in earlier years but recorded a small surplus in 1979. In all other countries persistent deficits were reported: on a rising scale for Czechoslovakia (reaching nearly $700 million in 1979) and for Romania ($200 million in 1979); and at decreasing levels up to 1979 in Bulgaria (where the deficit fell to nearly $400 million) and in Hungary (where the deficit fell to $200 million).

During January-September 1980, fluctuations in these balances continued. The Soviet export surplus rose to an annual rate of $2.7 billion in the first nine months. The Bulgarian and Hungarian deficit almost disappeared, while the Czechoslovak deficit was roughly halved. On the other hand, the Polish and probably the German Democratic Republic's surpluses reverted to deficits (the Polish deficit amounting to roughly $900 million), while the deficit of Romania increased considerably.

These developments imply that during January-September 1980 growth rates of imports in value terms from eastern partners exceeded the corresponding export growth in Poland (where imports rose by 13 per cent and exports declined) and most likely in the German Democratic Republic and Romania. In Hungary, flows in both directions declined—especially Hungarian imports. In contrast, Bulgarian and Czechoslovak exports to eastern partners grew much faster than imports, and in the Soviet Union the two flows expanded at almost equal rates (10-11 per cent). In volume terms, imports by Bulgaria, Czechoslovakia and Hungary, and the exports of Hungary and Poland, certainly declined, while volumes of other countries' export and import flows should show slight to moderate increases. The growth rate of export values in 1980 speeded up in Bulgaria, Czechoslovakia and the Soviet Union compared with 1979, but decelerated sharply in other countries. Imports speeded up in the Soviet Union, Poland and most likely the German Democratic Republic, decelerated in Hungary but changed little in other countries.

Another factor which tended to affect trade within the eastern area is the growth of mutual *economic co-operation.* It also imposed some fluctuations on growth rates of trade, principally for two reasons. First, fluctuation in trade growth rates may arise from uneven expansion of output and demand in the region, since a considerable proportion of national output is mutually traded: the proportion in the case of machinery produced in the region, for example, is currently as high as 33 per cent. Second, the timing of trade flows is linked to the execution of joint projects. During the construction phase deliveries of machinery and equipment flow in one direction and are subsequently followed by shipments of resultant products in the opposite direction. In successive periods these two flows tend to offset each other, and this has in fact happened on a considerable scale.

New impetus to intra-CMEA co-operation is expected from the new five-year plans (1981-1985) which are now being finalized. They will provide for the implementation of decisions recently taken within the frame of the long-term target-oriented co-operation programmes. These programmes involve the development of energy (especially atomic energy), fuels, some raw materials, agriculture, the food industry, engineering, industrial consumer-goods production, transport and communications. Their aim is to organize production on a co-ordinated basis and hence to improve the region's supplies of the corresponding goods and services. This should facilitate the substitution of imports currently purchased outside the eastern area, which is considered desirable for balance of payments reasons. It is hoped that the programmes will moderate the stop-go effects on the growth of mutual trade arising from joint projects, as explained above, by providing a framework for a continuous and rising trend of mutual trade.

With this in mind, the new Soviet five-year plan foresees an increase in Soviet trade with its eastern partner countries of 40 per cent over the 1981-1985 period—some 7 per cent per year. However, the plan envisages scarcely any growth of Soviet oil exports (which are expected to amount to 400 million tons over the five years or an average of 80 million tons annually). Exports of machinery are expected to progress at rates similar to over-all exports.

(iii) Trade with developing countries

The growth of trade volume of the east European countries and the Soviet Union with developing regions picked up in 1980 (January-September) after having stagnated in 1978 and 1979 taken together. However, it is not possible to provide more precise information, since the data shown in table 3.6.1 are calculated as residuals. Price information is uncertain because it is derived from the volumes and corresponding values given in current statistics. Thus, both volumes and prices contain an undetermined margin of error. However, they are accurate enough to indicate the direction of change.

It appears that, in 1978 and 1979, the relatively moderate falls and rises in volumes of export and import flows with the developing countries roughly cancelled out and that there was hence no growth in the two years combined. In contrast, in 1980 (January-September) the tendency towards a relatively fast expansion of this trade strengthened—especially with regard to eastern imports from developing countries.

This buoyancy in 1980 was due, *inter alia,* to increasing supply and demand capacities affecting this trade; these expanded in both eastern and developing countries. On one hand, the volume of intra-eastern area trade stagnated and the trade with industrial market economies increased only moderately. On the other hand, the decline in developing countries' exports to industrial market economies left a surplus for shipment to eastern countries. Additionally, eastern countries had to turn increasingly to developing countries for supplies of oil, cereals and certain industrial materials to compensate for lack of supplies from within the eastern area and also from the United States. The flow of credits and credit repayments as well as the timing of co-operative projects also played some role.

Growth trends for this trade differed in value and volume terms: import and export expansion both accelerated in 1979 and in January-June 1980. However, growth rates of eastern exports to developing countries remained relatively modest (some 15 per cent in January-September 1980) while the reverse flow increased at extremely rapid rates (some 24 and 47 per cent in 1979 and in January-September 1980 respectively). Most of this discrepancy was due to prices, implying considerable deterioration in the eastern countries terms of trade. As a result, the surplus of the eastern countries in their trade with the developing countries in 1980 declined below the levels of $4.6 and $4.4 billion reported for 1978 and 1979 respectively.

The major flows in this trade are Soviet exports to and imports from developing countries: in 1979 they accounted for 63 per cent on the export side and for 52 per cent on the import side. These flows are therefore the major determinants of this trade. Exports of the Soviet Union to these countries increased by nearly 12 per cent over January-September 1980—a rather moderate rate which probably implies a stagnation in volume but is still a great deal faster than reported for 1978 and 1979. On the other hand, Soviet imports from the developing countries rose by 57 per cent compared with January-September 1980. This very fast rate implies a rapid increase in volume terms also and follows a slow expansion of some 5 per cent in both 1978 and 1979. The Soviet surplus in this trade declined to an annual rate of some $2.5 billion in January-September 1980, compared with $4.4 billion in 1979. This unprecedented rise in Soviet imports from developing countries was due in a large measure to price rises and to the switching of certain Soviet food purchases away from the United States and Canadian markets to developing countries.

The experience of the other eastern countries was mixed. During January-September 1980, rapid growth rates were reported in this trade by all other countries except Hungary (where it may have declined in volume terms); except for Bulgaria and Czechoslovakia eastern countries' imports increased at a faster rate than exports.

As already stated, co-operation between eastern and developing countries and the timing of credit flows affected the growth of this trade. The major element of co-operation was the individual projects built in developing countries with the assistance of eastern countries. The number completed has been high in recent years, and this enhanced flows of resultant products from developing to eastern countries. Eastern long-term credits were closely related to these projects. Measured on a net basis, their annual disbursement reached the record level of nearly $1.4 billion in 1973 but has declined gradually to some $900 million in recent years. Clearly the real value of these credits declined even more sharply.

New efforts are now underway to stimulate co-operation. The emphasis is on raising the capacity of developing countries to export manufactured goods.

(iv) East-west trade

Since information on east-west trade is more abundant in western than in eastern statistics, the following analysis will be based on western statistics. However, some major discrepancies between the two sources will be pointed out in the text.

In *value* terms east-west trade maintained its dynamism over the last three years though a slightly less buoyant tendency was noticeable in 1980 (table 3.6.1). Eastern exports to western countries rose by 14 per cent in 1978, by as much as 35 per cent in 1979 and again by 29 per cent in 1980 (January-September). Eastern imports from western countries grew by 18 per cent in both 1978 and 1979 and by 15 per cent in 1980 (January-September). Thus the expansion of eastern exports to western countries in 1979 and 1980 was much more dynamic than the expansion of the reverse flow, which had strong equilibrating effects with regard to east-west balances on merchandise trade.

The bulk of the above growth was due to *prices*—which rose fast, especially prices of eastern exports to western countries. The prices of the latter flow expanded by a moderate rate of some 10 per cent in 1978 but by an extremely rapid rate of some 38 per cent in 1979; estimates for export prices in 1980 (January-September) are only approximate, but it seems that they continued to increase rapidly although perhaps at a somewhat reduced rate. Prices of eastern imports from western countries, although accelerating gradually, expanded relatively moderately (from 7 per cent in 1978 to perhaps 15 per cent in 1980). This indicates that the terms of eastern countries' trade with western countries improved slightly in 1978 but sharply in 1979 and in 1980 (by 24 and perhaps 10 per cent respectively). This was due mainly to the rise in prices of Soviet oil; this had strong impact on average prices because oil accounted for nearly 30 per cent of total western imports from eastern countries in 1978. As already mentioned, this was the major factor in balancing east-west merchandise trade.

The expansion of east-west trade in *volume terms* has probably stagnated recently. Eastern imports grew by a rapid rate of 10 per cent in 1978. Growth slackened to a more moderate but still fast rate of 6 per cent in 1979, and may have increased little if at all during January-September 1980. The growth of eastern exports was slack throughout: a moderate expansion of nearly 4 per cent in 1978 was followed by a decline of more than 2 per cent in 1979—though this loss may been recovered in 1980 (January-September). Measured in terms of average rates over the last three years, the volume of eastern imports was much more dynamic than the volume of eastern exports.

Growth rates by *individual eastern countries* continued to vary (tables 3.6.4 and 3.6.5) most probably because of the effect of uneven price rises on the different commodity composition of bilateral east-west flows.

In 1979 western imports from all eastern countries but Poland increased strongly, especially imports from the Soviet Union and Bulgaria. Rapid rates of western import growth from the Soviet Union, the German Democratic Republic and to a certain extent from Poland and Czechoslovakia were also reported in 1980 (January-September). In 1979, western exports grew rapidly to the German Democratic Republic and Romania, expanded rather fast to the Soviet Union and Czechoslovakia but grew moderately to the other countries. In 1980, the only very rapid rate reported in western exports to the east was for Bulgaria, but rates were still moderately fast for exports to the German Democratic Republic and Czechoslovakia.

Thus, with the exception of the German Democratic Republic in 1979, the eastern countries with the largest deficits (Poland, the German Democratic Republic, Hungary and Romania) all managed to achieve faster growth of export relative to import values in east-west trade in both 1979 and 1980. This helped to bring about either declines in their trade deficits or to keep any increase within modest limits. The same relationship between export and import growth was reported for the Soviet Union and Czechoslovakia, whose existing deficits were turned into surpluses. As already noted, the Soviet Union benefited a great deal from rising oil prices although its export volume to western countries also recovered in 1980.

The situation with regard to trade volumes was somewhat different. The volume of western exports to the Soviet Union practically stagnated in both 1979 and 1980. The figures in table 3.6.1 therefore imply that the volume of western exports to other eastern countries rose fast in 1979 but stagnated in 1980. The volume of western imports from the Soviet Union declined in 1979 but ground lost may have been roughly recovered in 1980. Western import volumes from other eastern countries stagnated in both years.

The value of imports from eastern countries increased at high rates in 1979 in all major western countries. For 1980, the same was true for all of them except the United States and Japan, which registered declines or stagnation. At the same time, the value of exports from some of these countries to eastern countries progressed only modestly—as in the case of the Federal Republic of Germany, Austria and Italy; stagnated—as in the case of Japan; or declined sharply—namely flows from the United States in 1980. From other countries, such as the United Kingdom, Yugoslavia, France and Finland, exports continued to rise fast. Indeed, it was due mostly to the above countries that the over-all western surpluses declined recently.

With regard to the eastern countries' trade with other western countries, the value of imports from the east rose very rapidly in both 1979 and 1980 in Denmark, Belgium, Switzerland and Spain, and by very little in Sweden (in 1980 only) and in Greece. Imports of eastern goods by Canada declined in 1980. At the same time, the value of western exports grew at slow rates in the case of Sweden (1980 only), Denmark, Switzerland and Spain (1980 only), but rose fast in the case of Belgium and Canada. Most of these countries continued to run a deficit on their east-west trade.

In volume terms, declines were reported for 1980 in imports of eastern goods by the Federal Republic of Germany, the United Kingdom, Japan and by a number of other countries. The same was true for Yugoslavia,

TABLE 3.6.4

Trade of the industrialized market economies with eastern Europe and the Soviet Union

	Western countries' imports c.i.f.					*Western countries' exports f.o.b.*					*Western trade balance: exports minus imports[c] (million US dollars)*		
	Value (million US dollars) 1979	*Percentage share of country's total exports 1979*	*Percentage change over same period of preceding year*			*Value (million US dollars) 1979*	*Percentage share of country's total imports 1979*	*Percentage change over same period of preceding year*					
			1978	*1979*	*Jan.-Sept. 1980*			*1978*	*1979*	*Jan.-Sept. 1980*	*1978*	*1979*	*Jan.-Sept. 1980*
Soviet Union	21 892	38	14	43	35	20 037	31	16	20	15	2 278	−478	−2 515
Poland	5 424	31	12	16	22	6 231	38	11	9	15	1 324	1 120	474
German Democratic Republic [a]	4 475	28	13	26	37	5 276	35	22	32	19	590	1 017	230
German Democratic Republic [b]	1 965	12	11	22	36	2 656	18	23	54	12	213	826	297
Czechoslovakia	3 213	23	14	27	24	3 067	24	13	19	22	173	37	−207
Hungary	2 784	32	13	29	16	3 137	40	29	1	14	1 062	502	501
Romania	3 472	32	21	36	13	3 882	40	29	26	5	684	613	576
Bulgaria	1 050	12	11	56	16	1 309	15	21	14	30	517	329	455
Total [a]	42 310	32	14	34	29	42 939	32	18	18	15	6 628	3 140	−487
Total [b]	39 800	30	14	35	29	40 319	30	17	18	15	6 251	2 949	−420
of which: *Trade of western Europe with east European countries and the Soviet Union*													
Soviet Union	18 996	33	13	43	42	13 334	21	9	17	33	−1 122	−4 526	−4 497
Poland	4 826	27	10	19	26	4 989	31	7	9	14	740	441	−12
German Democratic Republic [a]	4 401	27	12	26	37	4 618	31	18	23	18	399	428	−168
German Democratic Republic [b]	1 891	12	10	22	36	1 998	13	14	35	7	22	237	−101
Czechoslovakia	3 041	22	13	28	25	2 717	21	13	12	19	176	−152	−365
Hungary	2 614	30	12	28	17	2 998	38	29	2	13	1 007	525	472
Romania	2 974	27	16	42	17	3 174	33	34	27	−2	529	370	152
Bulgaria	983	12	12	56	18	1 199	13	20	15	24	447	281	322
Total [a]	37 835	28	13	35	33	33 029	24	14	15	21	2 176	−2 635	−4 096
Total [b]	35 325	26	13	36	33	30 409	22	14	15	21	1 799	−2 826	−4 029

Source: As for table 3.6.5.

[a] Including trade between the Federal Republic of Germany and the German Democratic Republic.

[b] Excluding trade between the Federal Republic of Germany and the German Democratic Republic.

[c] Exports *f.o.b.* minus imports *f.o.b.* The latter have been adjusted according to data taken from IMF, *International Financial Statistics* for each country.

TABLE 3.6.5

Trade of the industrialized market economies with eastern Europe and the Soviet Union

Country	Imports c.i.f.					Exports f.o.b.					Trade balances: exports minus imports[b] (million US dollars)		
	Value (million US dollars) 1979	Percentage share of country's total imports 1979	Percentage change over same period of preceding year			Value (million US dollars) 1979	Percentage share of country's total exports 1979	Percentage change over same period of preceding year					
			1978	1979	Jan.-Sept. 1980			1978	1979	Jan.-Sept 1980	1978	1979	Jan.-Sept 1980
Germany, Federal Republic of[a]	7 986	5	26	42	17	8 695	5	16	13	10	2 285	969	965
Italy	3 866	5	13	32	49	2 633	4	5	9	12	−342	−967	−1 678
Yugoslavia	3 449	27	6	20	33	2 660	41	16	12	43	−255	−504	−347
France	3 290	3	14	30	67	4 027	4	5	38	20	478	887	−154
United Kingdom	2 958	3	5	30	14	2 058	2	29	10	41	−262	−574	51
Finland	2 606	23	−5	53	61	1 807	16	2	3	41	160	−628	−889
Austria	1 773	9	12	27	43	1 992	13	18	20	11	318	276	−188
Sweden	1 766	6	−5	63	1	1 175	4	4	20	7	−25	−468	−219
Netherlands	1 811	3	16	50	16	1 144	2	15	22	32	−209	−574	−251
Belgium	1 059	2	15	29	76	1 059	2	12	24	35	66	52	−100
Denmark	878	5	14	30	34	377	3	17	13	8	−304	−455	−464
Switzerland	1 134	4	40	35	62	1 068	4	21	1	5	246	−33	−327
Spain	561	2	10	48	39	547	3	24	55	1	7	28	−108
Greece	592	6	69	−9	7	360	9	15	−6	27	−198	−164	−11
Norway	397	3	−19	24	−18	246	2	16	−23	6	9	−140	−72
Turkey	693	12	14	77	13	325	13	87	1	75	−26	−299	−89
Ireland	193	2	11	45	−21	72	1	30	87	1	−89	−112	−56
Iceland	105	13	−7	50	50	64	8	−20	28	57	−13	−31	−21
Portugal	209	3	−19	56	21	100	3	−7	33	−19	−47	−89	−74
Total western Europe	35 326	5	13	36	33	30 409	4	14	15	21	1 799	−2 826	−4 032
United States	1 976	1	64	23	−16	5 674	3	45	54	−29	2 168	3 812	1 502
Canada	265	0	10	27	−5	991	2	42	28	154	571	734	1 023
Japan	2 233	2	3	34	3	3 244	3	20	1	1	1 713	1 228	1 085
Sub-total	4 474	1	25	28	−5	9 909	3	33	30	−4	4 452	5 774	3 610
GRAND TOTAL	39 800	3	14	35	29	40 318	4	17	18	15	6 251	2 948	−422

Sources: OECD, *Statistics of Foreign Trade*, Series A, Paris. IMF, *International Financial Statistics*, Washington, D.C., Federal Institute of Statistics, *Indeks*, Belgrade. IMF, Direction of Trade.

[a] Excluding trade with the German Democratic Republic.

[b] Exports *f.o.b.* minus imports *f.o.b.* See note c in table 3.6.4.

Austria and France in 1979 and the United States in both 1979 and 1980. The volume of exports to the east by the Federal Republic of Germany, Italy, Austria, the United States and a number of other countries may have declined in 1980; in the case of Japan, there were declines in both 1979 and 1980.

(v) Factors affecting the growth of east-west trade

East-west trade is affected by numerous factors. The most obvious determinant of its growth is the level of demand in each of the two regions, which can be approximated by growth rates of their output respective to their total trade. Among other factors the most important are likely to be commercial policies, progress in achieving economies in inputs, changes in trade practices, supply capacity, competitiveness and the development of economic co-operation.

The major characteristic of economic activity in the eastern countries in recent years has been either the slowdown in growth rates of output and demand, or slight increases where growth rates were already low; growth rates in most of these countries were hence moderate in both 1979 and 1980. Economic activity in western countries has tended to slacken recently. The GNP growth rate of the OECD countries taken together recovered to 3.3 per cent in 1979 but slackened to 1 per cent in 1980 and may remain at about that level in 1981. Domestic demand was the leading element in the slowdown. It increased by 3.8 per cent in 1979 but stagnated in 1980, and current expectations are for only slow growth of around 0.5 per cent in 1981. The major expansionary factor was exports, the volume of which increased by 6.3 per cent in 1979 and by another 5 per cent in 1980; a rise of about 2.5 per cent appears likely in 1981. On balance, the above patterns of demand growth accentuated fluctuations in imports; their volume rose at the fast rate of 8.3 per cent in 1979 but declined by nearly 1 per cent in 1980, and may decline further in 1981. In the case of imports from non-OECD countries, the variation was even more marked; a volume increase of 5 per cent in 1979 was followed by a decline of 5.5 per cent in 1980, and no growth is expected for 1981. Thus, the general climate of world trade and in particular the conditions affecting the growth of east-west trade worsened in 1980 and may remain precarious in 1981.

Changes in *commercial policies* were a continuous process and were often of a contradictory nature. On the one hand, they improved the conditions for international trade, including east-west trade and were thus expansionary. On the other hand, they had a tendency to accentuate domestic priorities. In western countries measures were invoked to safeguard employment and certain recession-sensitive sectors of the economy, and in eastern countries their main purpose was to help reduce deficits in current balances.

The measures taken by western countries late in 1979 and during 1980 to promote and also to restrict trade were both of a general nature and specific to east-west flows. Among western trade promoting measures of a general nature mention should be made of new International Customs Valuation Code (valuation practices were simplified and streamlined); a number of more liberal rules concerning dumped and subsidized imports; the Agreement on Technical Barriers to Trade (which provides that national standards and technical regulations should be based on international standards which diminish unnecessary obstacles to trade); and the easing of some restrictions in the "anti-crisis measures" concerning trade in iron and steel products. Among general measures of a restrictive nature, mention should be made of the EEC commission regulations for surveillance of imports of a number of textile products originating in certain non-member countries, and the special temporary measures to limit imports introduced by the Greek government.

Among western trade-promoting measures undertaken late in 1979 and in the course of 1980 specifically in relation to trade with eastern countries, the principal ones were: EEC's revised quota lists and its grant of exceptional openings of quotas or the opening of additional quotas; and the EEC-Romanian agreement on trade in industrial products (which followed an earlier agreement on iron, steel and textiles). Among neutral measures mention should be made of new invocations of anti-dumping procedures and the granting of some appeals against dumping—which were, however offset by the termination of other anti-dumping or anti-subsidy procedures. East-west trade was, however, adversely affected by US restrictions on exports of grains and high technology goods to the Soviet Union. This was the principal cause of a 29 per cent decline in US exports to the eastern countries recorded during January-September 1980. Canada joined this embargo but terminated it 10 months later.

Policies in most eastern countries in 1979 and 1980, though not in the Soviet Union, were intended to assist in the reduction of deficits on east-west trade. The measures adopted stressed the mobilization of domestic resources, the achievement of economies in consumption of industrial inputs, promotion of exports and the use of domestic stocks. In some cases they entailed cuts in the level of certain imports, which lead to supply shortages for domestic users. Some changes made in planning and management systems enhanced the ability of the foreign trade system to respond to world market conditions. Particular attention was paid to prices.

At present, *east-west industrial co-operation* is estimated to contribute some 20 per cent annually to east-west trade but this share may have fallen lately. Moreover, the direction of flows arising from co-operation has altered. In earlier years, co-operation contributed substantially to western exports to eastern countries, but recently flows in the opposite direction have been gaining momentum. This reflected both the changing climate for co-operation and the nature of the co-operation projects involved.

On the western side, the climate for co-operation was very propitious in earlier years when the buoyant domestic economic activity of the mid-1970s was accompanied by shortages of energy and raw-materials. A number of important projects to be implemented within the framework of east-west co-operation were negotiated during that period. Later in the 1970s, the climate grew worse as economic activitiy slackened in western countries. As a result, only a few smaller scale projects were agreed upon in 1978 and 1979. On the eastern side, the pressure for co-operation has always been strong given its role in boosting future export potential and domestic development.

Among the projects undertaken through co-operation schemes, the most important were investment projects. They are often termed compensation agreements, and provide for the supply of capital goods by western partners on credit in return for a share of resultant products in payment. The contribution of these projects to east-west trade flows has varied over time. In earlier years they contributed considerably to the rise in western exports of machinery and equipment to eastern countries and, more recently, to eastern exports of resultant products to western countries. It is estimated that Soviet earnings on this account amounted to $2 billion in 1980, which was more than twice as much as three years before. It is expected that these earnings may rise to $4 billion by 1985.

The expansion of other types of east-west co-operation has also tended to level off recently. Specialization between eastern and western firms, in terms of sub-contracting, made little direct contribution to east-west trade. However, it stimulated the export of licences and the corresponding machinery and equipment. Progress in the field of joint ventures continues to be very slow.

There are increasing indications that the climate for east-west co-operation has improved recently. Although economic activity in the west is slack at present, it has become evident that any future revival in that activity will be constrained by inadequate supplies of energy and industrial materials. In this context, east-west co-operation could again increase in importance since the eastern and western economies are in many respects complementary. National legislative provisions and inter-governmental and inter-firm agreements to improve the framework for economic co-operation have been put in hand in recent months. Negotiations are under way or in preparation concerning a number of substantive projects and a number of agreements on specific projects have moreover been signed recently.

Legislative measures have been especially numerous. In 1980, Hungary and Poland finalized the arrangements outlined in earlier years for improving conditions for co-operation. Bulgaria introduced a comprehensive legal framework in 1980 to encourage economic co-operation with western companies, which included provisions for setting up joint ventures. Between October 1979 and April 1980, 14 new long-term, east-west agreements on trade, industrial and technological co-operation were signed, raising the number of such agreements to 284. A specific agreement for the promotion and mutual protection of capital investments was signed recently between the Federal Republic of Germany and Romania, which guarantees the capital and profit transfer rights of the western partner.

Among long-term projects recently agreed, mention should be made of the $6.5 billion, 10-year agreement between the Soviet Union and the French company Rhone-Poulenc for the exchange of chemical plant and specific chemical products for oil and certain other chemicals; the 20-year agreement between Austria and Poland for coal supplies; five-year agreements between Montedison-Italy and Hungary, Poland and Czechoslovakia for exchanges of chemicals worth $520 million; an agreement between France and the Soviet Union for co-operation in the field of technology and electronics. Mention should also be made of the planned sale by the European Economic Community of food to Poland at concessionary prices to a value of up to $350 million.

Some long-term projects are still being negotiated: the natural gas project worth some $11.5 billion (involving a $5 billion credit from the Federal Republic of Germany alone) under which the Soviet Union will eventually deliver up to 40 billion cu. m. of natural gas annually to the Federal Republic of Germany, Italy, Austria, France, Belgium and the Netherlands; the decision by the Soviet Union and Japan to resume negotiations concerning joint development of projects in Siberia; and the approval by the US administration of a possible $1 billion sale of equipment to the Soviet Union to lay a natural gas pipeline from Siberia to western Europe.

The so-called *tri-partite co-operation* which started to expand in the late 1970s was reported as gaining momentum recently. It is in fact a new phenomenon in international economic relations which emerged together with the increasing role of eastern countries in the world market, involving enterprises, other economic organizations and governments in the industrial market economies, eastern countries and developing regions. It is a mixture of administrative, production, trade, technology, research, prospecting and credit measures and practices, and reflects technological, production and service complementarity between eastern and western countries while extending services to developing countries. To this extent it helps economic co-operation between both eastern and western countries and between these and developing regions. This co-operation may become an important source of convertible currency for eastern countries. Between 1965 and 1979, 130 tripartite co-operation schemes were realized, of which 50 between 1976 and 1978. Moreover, 86 agreements calling for tripartite co-operation in general terms were signed between 1965 and 1979 of which 40 between 1976 and 1978.

Further progress was reported in *counter-purchase deals* which emerged as a more frequent feature of east-west trade from the mid-1970s. They involve an element of payment in kind by the eastern countries for western products. Their rise was linked to the less favourable prospects and conditions for eastern countries to sell in western markets, and the need to reduce their deficits in trade with western countries. Counter-purchase deals have contributed a rising share of east-west trade, especially of trade in machinery, vehicles, some chemicals, electronics and consumer goods.

The discussion of factors affecting the growth of east-west trade can be wound up by a rough estimate of their relative importance. One can start with the proposition that if commercial policies, competitiveness, capacities and intensity of co-operation are neutral, demand levels in the respective countries would dominate the growth of their mutual trade. There would hence be no change in their respective market shares. However, changes did occur in the past years. Shares of eastern countries in western markets declined slightly in 1978 and a great deal in 1979, but recovered somewhat in January-September 1980. Western countries increased their market shares in eastern countries in 1978 and 1979 but saw them diminish in January-September 1980. Thus factors other than demand have affected the preformance of east-west trade in recent years.

The situation in western markets can be analysed more precisely by separating out from total western imports purchases from within and from outside the area. It can be presumed that intra-area trade will be the most dynamic because of its well established and appropriate structure and strong internal integration tendencies. Thus, outside countries may be expected to lose some market shares as a matter of course, individual losses depending on competitiveness and supply capacities. Indeed, OECD's intra-area trade increased faster or declined slower than trade with non-OECD countries in all the years under review. However, eastern countries did better with their exports to western markets than other non-OECD countries in 1978 and in January-September 1980 but performed relatively worse in 1979.

(vi) The balance of payments

Western statistical sources (table 3.6.6) indicate that the surplus on current account of western countries in their trade with eastern countries, which had declined sharply from $8.2 billion in 1978 to $5.7 billion in 1979, continued falling in 1980, although at a considerably reduced rate (to perhaps $4.2 billion). This development should be viewed against the large western surplus on trade and payments balances with eastern countries which had been a constant feature of previous years. These figures are a great deal larger if the trade balances shown in eastern statistics are used. The western surplus on current account then amounts to some $10.5 billion in 1978, $7.5 billion in 1979 and $6 billion in 1980. Thus, both sets of statistics indicate a decline in the surplus in recent years, resulting from two divergent trends: on the one hand, the western surplus in merchandise trade declined considerably, while on the other hand, the western surplus on trade in services rose rather fast. Within the over-all current account, the influence of the first of the two elements remained strongest.

Western statistical sources show that the western surplus in merchandise trade declined sharply over the last two years—from $6.6 billion in 1978 to $3.1 billion in 1979 and perhaps to an annual rate of less than $1 billion in January-September 1980. The western surplus in 1980 was thus by far the smallest reported during the last 6 years, probably amounting to less than 10 per cent of the record surplus registered in 1975. However, since the eastern statistical data quoted above show that this surplus was larger than the figures quoted above by $2.2 billion in 1978 and by $1.8 billion in 1979, the western surplus in 1980 would, if adjusted in this way, amount to some $2.5 billion.

These discrepancies are, in fact, due to the so-called "mirror statistics puzzle" which arises when the trade flows of a country as shown in its official statistics differ from data on the same flow as mirrored in the official statistics of the partner country. The mirror discrepancy seems to be particularly large in east-west trade. It is due to differences in valuation procedures (notably the inclusion or exclusion of transport and related costs), differences in customs valuations and in exchange rate coefficients, variations in the coverage of merchandise trade (definitions, reporting systems, leads and lags) and the identification of partner countries (countries of consignment, production, purchase, provenance, consumption, sale, destination—which mainly affect the treatment of re-exports).

The contribution of individual countries to changes in east-west trade balances varied a great deal but were roughly in line with the level of their individual balances. In the last few years, the largest contributions to declining western surpluses came from the Federal Republic of

TABLE 3.6.6

Estimated balance of payments and loans of the industrial market economies with eastern Europe and the Soviet Union

(Million US dollars)

	Current account								
			Net services						
	Total (1-10)	*Trade balance f.o.b.-f.o.b. (1-2)*	*Total (3-8)*	*Transport and insurance (3-4)*	*Travel (5)*	*Income (6-8)*	*Transfers (9-10)*	*Loans outstanding*
A. *Total eastern countries 1975-1980*								
1975	9 943	9 286	975	25	−450	1 400	−318	28 000
1976	8 017	7 417	1 300	−50	−450	1 800	−700	37 000
1977	5 932	4 877	1 860	−70	−470	2 400	−805	43 000
1978	8 243	6 628	2 637	−48	−555	3 240	−1 022	53 000
1979	5 680	3 140	3 740	—	−560	4 300	−1 200	60 000
1980	4 210	800	4 860	−70	−670	5 600	−1 450	67 000
	1979							*1980*
B. *By eastern country*								
Bulgaria	379	329	50	..	..	230	—	3 800
Czechoslovakia	387	37	350	..	..	210	—	3 100
German Democratic Republic	1 257	1 017	650	..	..	560	−410	9 500
Hungary	1 077	502	615	220	−40	450	−40	7 800
Poland	1 840	1 120	1 470	..	..	1 420	−750	21 100
Romania	1 033	613	420	..	..	400	—	7 700
Soviet Union	−423	−478	55	..	..	900	—	14 000

Sources: Estimates are based on IMF, *Balance-of-Payments Yearbooks*, Statistical Office of the European Community—*Eurostat Balance of Payments*, and on direct communications and press reports.

Note: Numbers in parenthesis under column headings are the IMF item numbers.

Germany, France, Italy, the United States and Japan; and to declining deficits from Poland, the Soviet Union and the German Democratic Republic. The change in the position of the Soviet Union was particularly noteworthy. According to western statistics, it succeeded in transforming the deficits it registered on east-west trade in earlier years ($2.3 billion in 1978) into a surplus as early as 1979 ($0.5 billion) and again in the first nine months of 1980 ($2.4 billion at an annual rate). Soviet statistics showed this deficit to be $3.1 billion in 1978, falling to $0.2 billion in both 1979 and 1980. These shifts were most strongly affected by the rising prices of Soviet oil. The Polish deficit fell progressively to well below $1 billion in 1980. The Hungarian, Bulgarian and Romanian deficits rose in 1980 (to levels of $600-$800 million).

The rise in the western surplus on services may have reached $5 billion in 1980. Moreover, annual increments in this surplus moved gradually from some $600 million in 1977 to perhaps $1.1 billion in 1980. Within these totals, the major growth item was income payments to western countries derived from the interest on credits extended to the eastern area—which themselves continued to increase. On the balance, these income payments may have reached $5.6 billion in 1980.

Under existing circumstances, the western surplus in services may soon become the major element of imbalance in east-west current account positions. As it rises, it tends to offset attempts to curtail the growth of western surpluses on merchandise trade. In fact, the western surplus on services came to exceed its surplus on merchandise trade with the eastern countries for the first time in 1979 (by some $600 million) and this margin was considerably enlarged in 1980 (to perhaps $4 billion). This difference was only partly offset by western deficits on transfers, which rose only slowly (perhaps to about $1.5 billion in 1980). The gap between the two accounts is likely to increase in the years to come. To maintain over-all equilibrium, this would require a shift to long-term eastern surpluses on merchandise transactions if problems of financing east-west trade are to be avoided. This task may be very difficult to achieve.

The deficits of most eastern countries have increased recently but the position of individual countries in relation to the size of their east-west service balances varied widely. On the basis of figures estimated for 1979, the Polish deficit amounted to roughly $1.5 billion—or nearly 40 per cent of the total deficit on services reported for all eastern countries. Again this was mostly accounted for by interest payments ($1.4 billion). However, Poland derived nearly $800 million from western transfers, which offset to a large extent the above net inflow of services. In the same year, the deficit on services of both Hungary and the German Democratic Republic exceeded $600 million, and in each case accounted for some 17 per cent of the total eastern deficit on services. The German Democratic Republic earned some income from transfers from the west, but Hungary was rather short on this score.[166] The services deficit of other eastern countries was relatively modest in absolute terms. Moreover, the services item of the Soviet Union almost balanced. Interest payments, which exceeded $900 million in 1979, were roughly offset by receipts from transport services. The Soviet services balance moves in individual years between small surpluses and small deficits, which reflect mainly movements in Soviet grain imports of which part is transported by ships of the country of origin.

Bank credits continued to be the most important contributor to the financing of the current account balances, and its share may have risen lately in relation to total flows of credit from western to eastern countries (table 3.6.7). This was especially true in 1980: the net lending of western banks to eastern countries amounted to $4.6 billion during January-June—equivalent to an annual rate of $9 billion as compared with credits of $11.[illegible] and $3.6 billion extended in 1978 and 1979 respectively. This exceeded the western current account surplus with eastern countries in 1980, though it was smaller than that in 1979. A part of the difference can be explained by offsetting movements in the foreign currency reserves of the eastern countries. The final outcome is that the net position of western banks vis-à-vis eastern countries, which is the equivalent of eastern net debt to these banks, amounted to $45 billion in June 1980. This was nearly 70 per cent of the total (net) eastern debt to western countries.

It appears that a substantial proportion of east-west current account deficits is still financed by official credits. It can be estimated that eastern debt on this account amounted to nearly $17 billion in 1979—some 28 per cent of the total debt of eastern countries to western countries in that year. Official credits are preferred by eastern countries to commercial bank loans since they are cheaper and are often related to east-west industrial co-operation projects. Recently, the EEC countries proposed a new general formula for the co-ordination of terms on which official credits may be extended by individual countries. This formula is applicable to eastern countries also, and is being negotiated within the respective forums of OECD countries. A rise in interest rates is the major change expected to result from the formula, since the main purpose is to reduce the gap between the interest rates charged for official credit and commercial banks. Though this would raise the cost at which official credits can be obtained, their other advantages will not be eliminated.

The share of individual eastern countries in the above credit flows was related to their balances in east-west trade and the extent of their participation in east-west industrial co-operation. Poland has taken up the largest amounts of credit extended by commercial banks to eastern countries (its net total outstanding having risen up to the present to some $15 billion, or 32 per cent of the total). Poland is followed by the Soviet Union, the German Democratic Republic and Hungary where the corresponding figures are about $7 billion each or 15 per cent each of the total. The borrowing of these countries proceeded at a varying rhythm in 1980. The Soviet Union, which was absent from this market in 1978 and 1979, returned on a substantial scale in 1980. On the other hand, the Soviet Union took the bulk of credits granted mainly in connection with large investment projects (compensation deals). Poland took up further amounts.

Eastern countries procure convertible currency in other ways. An important source for the Soviet Union

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[166] Recently the Hungarian National Bank published the following current account balances in all convertible currencies, which covers a wider range of partner countries than those included in assessments of east-west transactions (in millions of US dollars).

	1976	*1977*	*1978*	*1979*	*1980*
Trade balance	−177	−362	−833	−167	279
Transfers	20	22	27	40	46
Current account	−239	−564	−1 186	−555	152

Source : The National Bank of Hungary.

TABLE 3.6.7

External position in domestic and foreign currency of banks in Group of Ten countries and Switzerland and the foreign branches of United States banks in the Caribbean area and the Far East vis-à-vis eastern Europe and the Soviet Union

(*Million US dollars—data at end of given period*)

Country	*1977 net position*	*1978 net position*	*1979*			*1980 (June)*		
			Liabilities	*Assets*	*Net position*	*Liabilities*	*Assets*	*Net position*
Bulgaria	1 900	2 682	711	3 085	2 374	801	3 194	2 393
Czechoslovakia	815	1 347	1 004	2 848	1 848	1 111	2 959	1 848
German Democratic Republic	3 438	4 998	1 897	7 724	5 827	2 132	8 810	6 678
Hungary	3 347	5 550	1 166	7 370	6 204	794	7 331	6 537
Poland	6 407	10 915	1 097	15 049	13 952	700	15 041	14 341
Romania	991	2 321	298	3 987	3 680	270	5 246	4 976
Soviet Union	6 332	6 909	8 621	12 922	4 301	6 151	12 051	5 900
Residual	1 952	2 217	628	2 932	2 304	607	2 971	2 364
Total	25 182	36 939	15 422	55 908	40 486	12 566	57 603	45 037

Source: BIS, *Annual Report*, 1975-1979 and BIS, *Press Reports* for 1979 and 1980.

Note: The ten countries are Belgium-Luxembourg, France, Federal Republic of Germany, Italy, the Netherlands, Sweden, the United Kingdom, Canada, Japan and the United States of America.

is sales of gold, which amounted to about 450 tons in both 1977 and 1978; the quantity fell to 290 tons in 1979 and perhaps to less than 100 tons in 1980. This decline was related to Soviet oil export receipts which, stimulated by rapidly rising prices, contributed to the financing of a rising share of Soviet imports from the west. Other sources of foreign currency at the disposal of eastern countries are exports to certain developing countries, business operations in the west paid for in convertible currency, and sales to private citizens for convertible currency in specialized domestic shops. Romania borrows regularly from IBRD.

Eastern countries' borrowings from western countries either to finance the current account deficit or to raise foreign currency reserves has led to regular rises in eastern debt to the western countries. Its net amount may have increased to some $67 billion in 1980 (of which some $5.5 billion was contracted through CMEA banks), as compared with some $60 billion in 1979 and perhaps no more than $28 billion five years earlier. An important point to make in this respect is that the rise in indebtedness was slower than the rise in eastern exports of goods and services to western countries, thus indicating a decline in the relative burden of indebtedness. In 1980, these exports amounted to some $60 billion, i.e. close to the level of debt. The narrowing of the gap was due to the rise in eastern export volume and even more so to the rising prices paid for eastern exports. The gap between the two figures would be even narrower even more if eastern gold sales were taken into account.

The distribution of indebtedness between individual countries was very uneven. The Polish debt is the largest of all, exceeding $21 billion in 1980 (of which western official credits amounted to nearly $7 billion), accounting for nearly 32 per cent of total eastern debt in that year.[167] This sum was also high in relation to Polish exports of goods and services to western countries, which amounted to some $8 billion in 1980. However, in recent years, increments in indebtedness have been considerably reduced (to some $1.7 billion in 1980). This reflected Polish success in reducing deficits on merchandise trade.

The debt of the Soviet Union was the next biggest to that of Poland (some $14 billion in 1980), but it was small relative to Soviet exports of goods and services to western countries (in 1980 these amounted to some $33 billion and more if Soviet gold sales are taken into account). Moreover, some $7 billion of the Soviet debt is self-liquidating as it arises from compensation projects. Among other eastern countries, indebtedness was relatively small in Czechoslovakia—perhaps $3 billion in 1980 as compared with $4.5 billion for exports of goods and services to the west. But it was both absolutely and relatively high in the German Democratic Republic, Hungary, Romania and Bulgaria (in 1980 their debts amounted to $9.5, $7.8, $7.7 and $3.8 billion respectively and their corresponding exports of goods and services to western countries to $7, $4, $4.5 and $1.8 billion).[168] A proportion of these debts were used to increase gold and foreign exchange reserves. Their levels are not known except in Hungary, where they stood at $2.1 billion in June 1980 (compared with $1.96 billion a year earlier).

The debt burden of individual eastern countries can also be measured through the debt service ratio, which relates capital and interest payments to convertible currency receipts. Debt servicing accounted for a large share of resources in all countries but the Soviet Union and Czechoslovakia. Precise measurements are not possible but some indications can be obtained on the basis of Polish experience.

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[167] The Polish plan-fulfilment report stated that Polish debt in western currencies rose in 1980 to an equivalent of $23 billion on the basis of a definition of debt used for east-west trade assessment.

[168] The Hungarian National Bank stated recently that the Hungarian outstanding net convertible currency debt at the end of 1979 amounted to $5,016 million. This sum is by definition smaller than the Hungarian net debt to western commercial banks shown by western statistics (see table 3.6.7). The difference reflects differences in coverage and above all the treatment of the country's gold reserves obtained through foreign borrowing.

The Polish external financing requirement amounted to some $7.6 billion in 1980 of which debt service accounted for $5.8 billion ($1.8 billion of which consisted of interest payments)—that is, about 70 per cent of convertible currency receipts. For 1981, Polish debt service payments are estimated to rise to $8 to $9 billion. If Polish relationships resemble those in other countries, it would appear that the Bulgarian debt service ratio was below 60 per cent in 1980, that of the German Democratic Republic, Hungary and Romania to between 37 and 55 per cent, while that of Czechoslovakia would amount to below 20 per cent. The Soviet Union stood out also in this respect: its debt service ratio may have reached 17 per cent in 1980. This ratio is even smaller if Soviet gold sales and exports for convertible currencies to some developing countries are taken into account.

On the western side, the largest amounts of official credits extended to the eastern countries were granted by the Federal Republic of Germany, France and Italy. Most of these credits were related to industrial co-operation activities which promote exports by both partners. Commercial credit is raised on Euro-currency markets, increasingly through syndicates in which banks from most western countries participate. Western banks are still relatively little exposed vis-à-vis eastern countries, which account for only about 10 per cent of their publicized Euro-currency loans (1979). Eastern countries enjoyed certain advantages in terms of interest rates on credits granted to them by these banks; the good credit rating of the eastern countries is reflected in the relatively low spread of interest rates over LIBOR (the London Inter-Bank Offered Rate).

CHAPTER 4

CHANGES IN THE STRUCTURE OF WEST EUROPEAN MANUFACTURING INDUSTRY IN THE 1970s

1. INTRODUCTION AND TRENDS IN TOTAL MANUFACTURING

Four years ago the secretariat published a study of structural change in European industry during the 1960s.[169] This was an attempt to compare and synthesize patterns of industrial development in both eastern and western Europe at a relatively detailed breakdown of industrial branches. The very different statistical classification systems meant in practice that east and west had to be treated separately in more or less self-contained chapters, but the aims of the analysis and questions asked were broadly similar.

The study presented here provides an up-dating of some aspects of this earlier study in respect of west European manufacturing industry, but it also extends the analysis to the relations between output, exports and imports at branch level. The analysis and statistical series of *Structure and Change* stopped in 1970, just before the so-called "oil price shock" of 1973 and the more disturbed conditions of the 1970s: it was recognized at the time that, stopping where it did, this earlier study would provide a useful benchmark for examining subsequent changes.

The study of comparative structural change is still inhibited by the considerable difficulties encountered in establishing internationally comparable series for individual manufacturing branches. The present chapter retains the same 18-branch breakdown of manufacturing industry that was used in *Structure and Change*: this of course helps to establish continuity between the analyses and the statistics, but it is also the case that an 18-branch breakdown is still about the most detailed that can be established without considerably reducing the number of countries and the comparability of the data, both between countries and between variables. Nevertheless there is evidence of considerable improvement of national industrial statistics in recent years, mainly because of the increased "policy" interest in structural questions, as well as the particular "adjustment" problems of traditional industries such as textiles and clothing. Thus, when *Structure and Change* was being prepared the breakdown of manufacturing industry in the national accounts of the Federal Republic of Germany was limited to nine branches and the Secretariat had to make a large number of estimates to obtain 18 branches; but as from December 1979 the Federal Republic's national accounts provide a 31-branch disaggregation of manufacturing with estimates going back to the 1960s. This development was a direct consequence of the Government's request to the five economic research institutes for regular structural analyses of industry. Although the same level of disaggregation cannot be established on a comparable basis for nine to ten countries at a time, such developments in national statistics obviously make a considerable contribution to improving the reliability of international comparisons at the 18-branch level.

It has not been possible to up-date all the basic series given in *Structure and Change*: this chapter concentrates on output (at current and constant prices), employment and foreign trade, all by 18 manufacturing branches. However, for the 1970s annual data have been collected and tabulated (not only for terminal years as in *Structure and Change*); furthermore, an attempt has been made to compare for each year, country and branch, the level of output with that of exports and imports. This last exercise required "blowing up" value added to obtain gross output and the transformation of trade data from the SITC to the ISIC classification. A major omission is the wage and salary bill, but it is hoped that estimates for this will soon be available for a subsequent note. The detailed statistics of manufacturing are not of course published with the same speed as the main aggregate variables in the national accounts: on average the disaggregated series for manufacturing appear some two years after the year to which they refer. Consequently the present analysis refers only to the period up to and including 1978: this is fortuitous but not without advantage since it means that the statistics cover a period of some five years after the first "oil shock" and end just before the second in 1979.

A final point, by way of introduction, is to clarify what is meant by "structure" and "structural change". These terms have been widely and loosely used in recent years to describe a variety of economic phenomena ranging from shifts in the parameters of behavioural equations of macro-economic models to any change which appears to be exceptionally large in relation to previous experience. In this chapter, "structure" is defined as the percentage distribution of a given variable, such as output or employment, among the eighteen manufacturing branches selected for study,[170]—and "structural change" refers to changes in that distribution. The degree of structural change in output and employment over a given period is, by definition, a positive function of (i) the branch growth elasticity [171] and (ii) the over-all output growth rate. In short, structural changes are brought about by inter-industry differences in growth rates and the two main questions asked in this chapter are (i) whether these differences were larger in the 1960s or in the 1970s and (ii) whether they widened or narrowed after 1973 and, if they have, whether they fall into any coherent pattern. The desired focus on relative growth rates is provided in the main by analysing changes in the shares of individual branches in total manufacturing output or employment. There is still ambiguity as to what counts as "structural change" insofar as some changes are cyclical, and therefore temporary. However it is not always feasible to isolate the underlying or more "permanent" changes from these cyclical fluctuations. In principle this could be done by the usual methods of separating trends from cycles, and an attempt to do this has been made in section 2. But such an exercise is not easy when there are rarely long annual series available for each of the 18 branches and when, as after 1973, both the amplitude and periodicity of the cycle appear to have changed. An additional complication is that the timing of the cycle is not the same for all branches: some lead, others lag behind that of total output. This complicates considerably the task of trying to identify the more permanent changes in structure, particularly when the period since 1973 is still, at least in statistical terms, very short. For these reasons this chapter examines changes in the branch pattern of output and employment from a number of standpoints (year-to-year changes, regression analysis of trends in branch shares, etc.) and is necessarily cautious in describing all the changes as "structural".

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[169] Economic Commission for Europe, *Structure and Change in European Industry*, United Nations, New York, 1977. In the rest of this chapter this study is referred to as *Structure and Change*. Unless otherwise stated the statistical sources for the tables and charts in this chapter are those listed in the appendix.

Trends in total manufacturing

Before proceeding to the analysis of the structures of output and employment it will be useful to discuss briefly changes in the principal variables for manufacturing as a whole. Compared with the 1960s, the (unweighted) average growth of manufacturing output in the nine countries, which are the principal focus of this note, fell in the 1970s by nearly two-thirds (from 6.3 to 2.4 per cent a year); [172] employment rose by an average 0.8 per cent a year in the 1960s but fell by 0.9 per cent a year between 1970 and 1978; productivity growth has decelerated, by more than one-third, and the average growth of the implicit prices of value added has more than trebled (table 4.1.1). None of the individual countries went against these trends although the degree of deceleration in growth and employment varies appreciably in some cases: real output growth in the 1970s fell rather less in France than in the rest of western Europe and employment growth was still positive in Finland, Italy and Norway. There are also large differences in the acceleration of price increases: a six-to-sevenfold increase in the United Kingdom, Sweden and Italy, and less than or just over, a doubling in the Netherlands, Belgium and the Federal Republic of Germany.

The annual developments in the 1970s are shown for the same variables in chart 4.1.1. It is clear from the chart that, except in the case of prices, the decisive break with the trends of the 1960s occurs after 1973, 1974 being the turning point for real output (except in the United Kingdom). For the period 1970-1973 the unweighted average growth rate of real output is 4.9 per cent and for 1973-1978 0.9 per cent a year. Output growth was thus on average already decelerating in 1970-1973, but the inter-country differences were widening: a few countries

TABLE 4.1.1

Total manufacturing industry: growth of real output, employment, productivity and prices in the 1960s and the 1970s, by country

(*Per cent per annum*)

	Real output [a]		*Employment* [b]		*Productivity*		*Implicit prices* [c]	
Country	*1958-1960 to 1968-1970*	*1970-1978*	*1958-1960 to 1968-1970*	*1970-1978*	*1958-1960 to 1968-1970*	*1970-1978*	*1958-1960 to 1968-1970*	*1970-1978*
Belgium	6.5	3.4	0.3	−2.0	6.1	5.5	2.3	4.7
Finland	6.9	3.1	2.0	0.6	4.8	2.5	4.7	11.9
France	6.3	4.4	0.8	−0.3	5.5	4.8	. .	8.0
Germany, Federal Republic of	6.3	2.0	0.4	−1.6	5.8	3.7	2.3	5.1
Italy	8.3	2.9	1.7	0.3	6.5	2.6	2.2	15.0
Netherlands	6.8	2.9	0.8	−2.6	6.0	5.7	2.7	4.7
Norway	5.3	1.5	1.1	0.1	4.1	1.4	3.7	9.6
Sweden	6.9	0.7	0.3	−0.9	6.6	1.6	1.6	9.4
United Kingdom	3.3	0.7	0.1	−1.4	3.2	2.1	2.3	13.5

Source: Data for the 1960s from Economic Commission for Europe, *Structure and Change in European Industry*, United Nations, New York, 1977, Appendix A.

[a] Value added at factor cost, 1963 prices for the 1960s and 1970 prices for the 1970s.

[b] Includes the self-employed.

[c] Implicit deflators of value added at factor cost.

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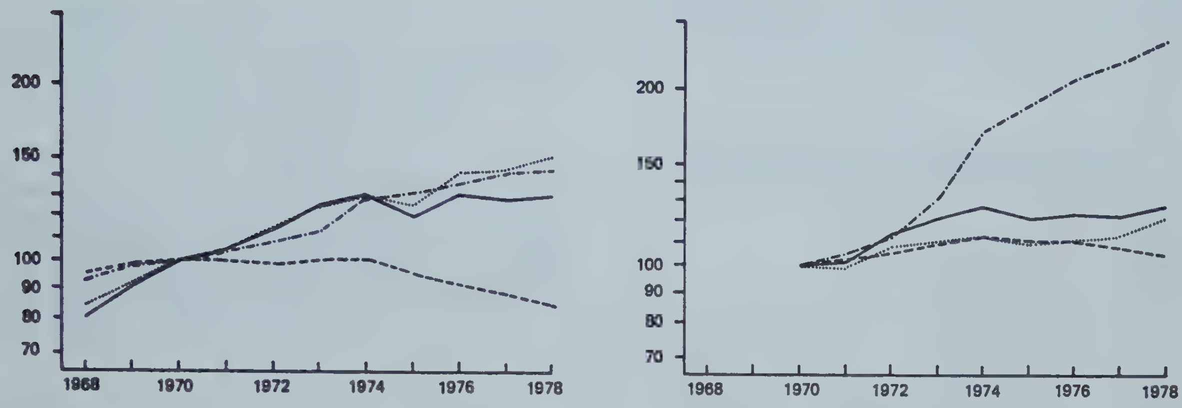
[170] The branches are listed in table 4.A.10.

[171] In this study a branch growth elasticity is defined as the ratio of the growth of branch output to that of total manufacturing.

[172] Comparisons are between growth rates for 1958-1960 to 1968-1970, and 1970 to 1978. Unless otherwise indicated the data used in this chapter are taken from national sources as listed in the annex.

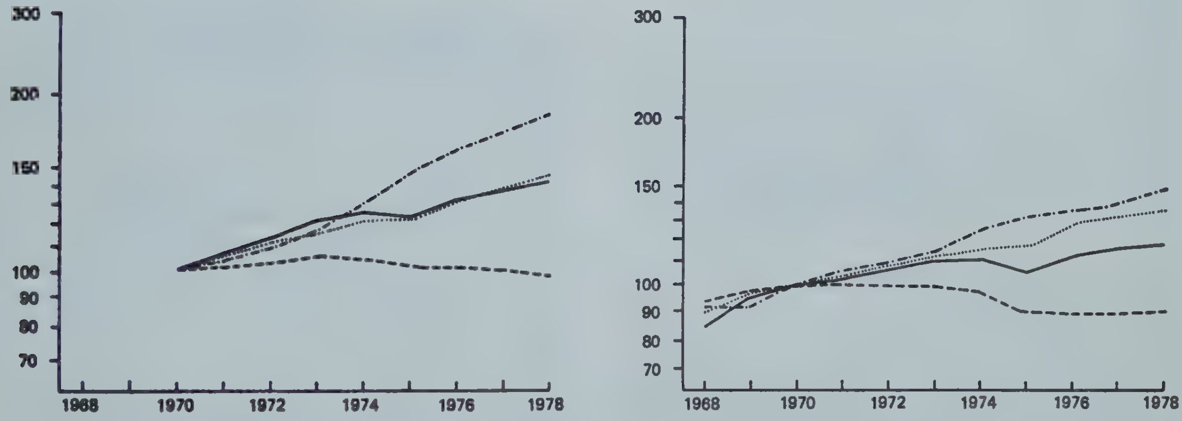
CHART 4.1.1

Index numbers of output, employment, productivity and prices for total manufacturing industry, 1970-1978, by country
(1970 = 100)



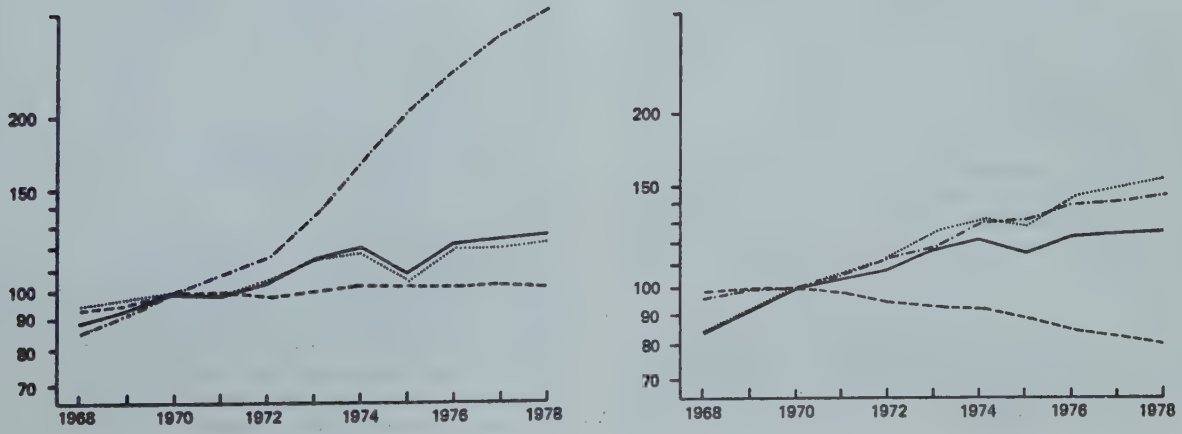
BELGIUM

FINLAND



FRANCE

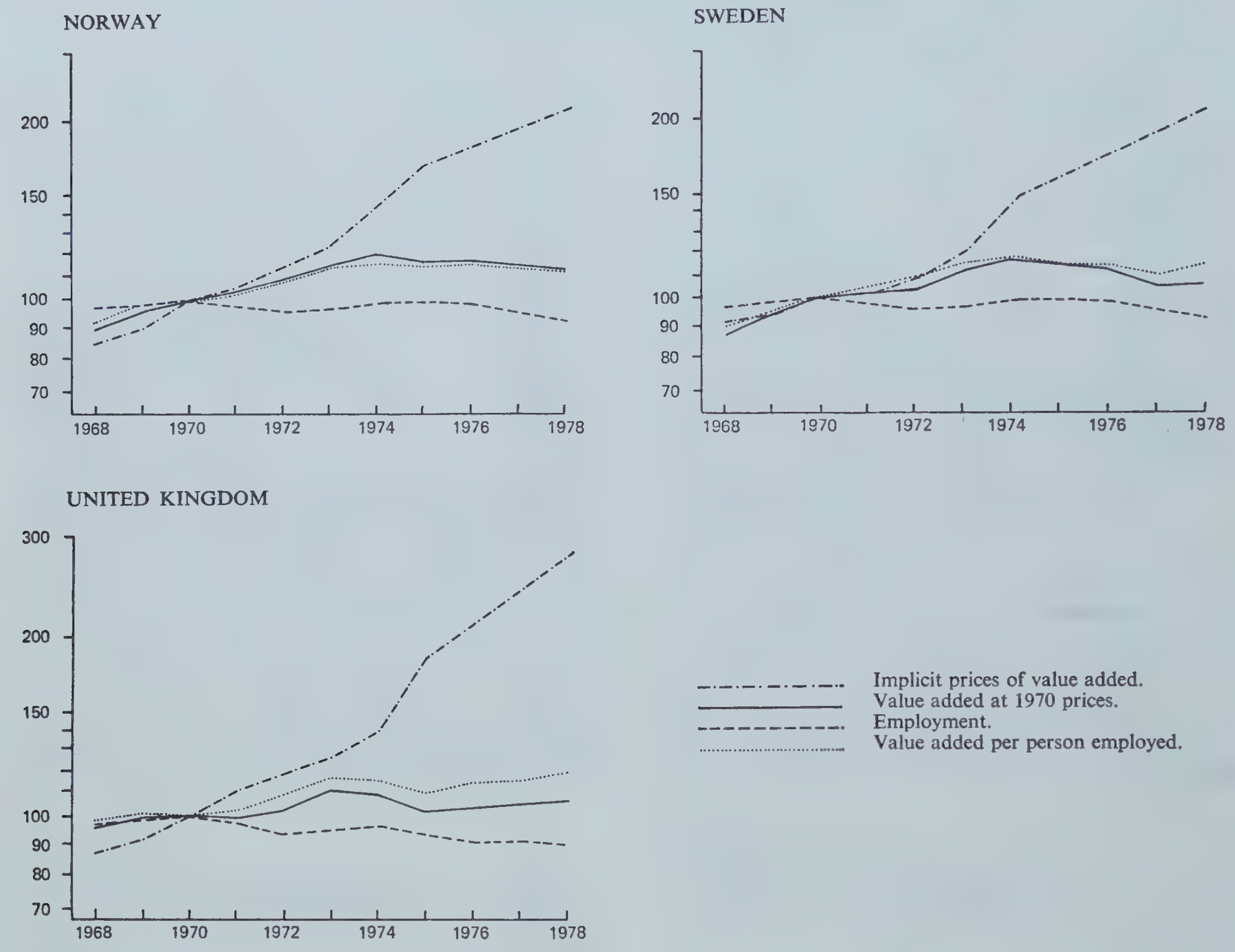
GERMANY, FED. REP. of



ITALY

NETHERLANDS

CHART 4.1.1 (*continued*)



actually had higher growth rates than in the 1960s (Belgium, France and the United Kingdom) while in others they had already slowed down appreciably (Sweden, Norway and the Federal Republic of Germany). In such a short period as 1970-1973 these differences are of course influenced by different cyclical positions and, probably more important, by the different macro-economic policies being pursued in the various countries and particularly by the varying response to the acceleration of inflation. These policy differences had narrowed considerably by 1978 although the relative variation in growth rates remained much larger than in the 1960s. (It can be seen from the chart that the relatively smaller decline in output growth in France in the period 1970-1978 is due to its relatively much higher growth rate after 1973: 3.1 per cent a year, while none of the other countries exceeded 1.8 per cent.)

Similarly large differences in employment growth are also apparent in the opening years of the 1970s: it was already in absolute decline between 1970-1973 in four of the nine countries, while in France and Finland it was increasing faster than in the 1960s. But for the period 1973-1978 the decline is absolute in all countries except Italy. These changes in output and employment growth are reflected in those for productivity growth which, on average, only falls sharply after 1973.

These changes in the growth of total output, employment and prices all amount to a very different macro-economic environment from that of the 1960s. They are of course, by now, very familiar and it is widely considered that they reflect a number of fundamental alterations in the structure of the western industrial economies. The rise in crude oil prices in 1973 is presumed to have lowered, relatively, the demand for the output of the more energy-intensive industries and to have made redundant a certain proportion of the existing capital stock, while policies designed to combat inflation have entailed lower growth rates of total output which, in turn, and on the basis of past experience, can be expected to affect the pace of structural change. Against this background it is the purpose of this chapter to examine what changes have actually occurred in the structure of west European manufacturing industry in the 1970s and to establish whether or not there is any significant departure from the underlying trends identified by the Secretariat in its earlier study of the 1960s.

2. CHANGES IN THE STRUCTURE OF OUTPUT AND EMPLOYMENT

A. WESTERN EUROPE, AN OVER-ALL VIEW

The summary measure of structural change employed throughout this chapter is one that has been widely used and is based quite simply on changes in the various branch shares between two periods, namely:

$$C = \sum_i (a_{i2} - a_{i1}). \text{ for all } a_{i2} \geq a_{i1}$$

where a_i is the percentage share of branch i in total manufacturing output or employment in periods 1 and 2 respectively. The index of structural change (C) is measured in percentage points. The mirror image of C is also widely used and can be interpreted as a measure of similarity between any two structures:

$$S = 100 - C.$$

The value of the similarity index (S) lies between 100, which indicates no structural change or, alternatively, perfect similarity of two structures, and zero, which indicates complete dissimilarity or a total reversal of structure in the relevant period.[173]

The index of structural change (C) is shown in table 4.2.1 for the nine [174] west European countries taken together; the index is given for the 1970s and for the period 1958-1960 to 1968-1970 which was the decade examined in the Secretariat's previous study, *Structure and Change.*

It can be seen that between 1970 and 1978 the degree of change was least for the structure of employment; the branch composition of real output changed most on the basis of the weighted average of the nine countries, but less than the change in current output if the unweighted[175] average is taken. The higher degree of change for the unweighted current output pattern reflects the fact that the smaller countries showed, on average, a higher degree of change than the larger ones. This also applies, in general, to changes in real output, but here the weighted average of the nine countries is strongly influenced by a particularly large change in France (see below).

TABLE 4.2.1

Indices of structural change for total manufacturing industry in western Europe,[a] 1958-1960 to 1978

	Index of structural change		*Index of the consistency of structural change 1970-1978*
	1958-1960 to 1968-1970	*1970-1978*	
(a) *Weighted averages :*			
Value added at current prices	4.7 [b]	5.7	0.31
Value added at constant prices	7.4 [c]	6.9	0.54
Employment	5.8	4.4	0.69
(b) *Unweighted averages :*			
Value added at current prices	5.3 [d]	6.7 (5.4 [d])	0.32
Value added at constant prices	7.8	6.2	0.42
Employment	6.1	5.2	0.72

Source : For 1958-1960 to 1968-1970 the data are from Economic Commission for Europe, *Structure and Change in European Industry,* United Nations: New York, 1977.

Note. For definition of structural change see text, page 185.

[a] Belgium, Finland, France, Germany, Fed. Rep. of, Italy, Netherlands, Norway, Sweden and the United Kingdom.

[b] Includes Yugoslavia but excludes France.

[c] Includes Yugoslavia.

[d] Excludes France.

Branches that show an increased share of total output in one year may fall back in a later year as a result of different cyclical patterns and changes in longer run development trends. It is therefore interesting to measure the degree to which the changes that have occurred in one year have been "consistent" in the sense that they have not been partially or totally reversed in later years. A measure of the degree of consistency of the changes in the branch pattern of output and employment over time is given in the final column of table 4.2.1. This index takes the value of 1 when there have been no reversals in branch share movements (i.e. total consistency of the changes over time) and zero when the year-to-year changes cancel out completely.[176] According to this index by far the highest degree of consistency, i.e. the lowest degree of reversal in branch share changes, occurs for employment although its over-all degree of structural change is the lowest of the three variables. The degree of consistency over time is least for current output, with real output taking an intermediate position.

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[173] These are the measures of structural change and of similarity used in the secretariat's previous study *Structure and Change.* The index C may also be written as half the sum of the absolute difference in shares for all a_i, i.e. $0.5 \sum_i | a_{i2} - a_{i1} |$. A number of alternative formulations have been used in other studies, although their identity is rarely acknowledged: thus, S (above) $= S_1 = S_2$ where $S_1 = 1 - \frac{1}{2} \sum_i | a_{i2} - a_{i1} |$ and $S_2 = \sum_i$ (minimum of a_{i2}, a_{i1}). S_1 is due to M. Michaely, *Concentration in International Trade,* North Holland, Amsterdam, 1962; and S_2 to J. M. Finger and M. E. Kreinin, "A Measure of "export similarity" and its possible uses", *The Economic Journal,* (89), December 1979.

[174] Austria is excluded here because it was only possible to estimate the output and employment structures in terms of 15 branches and not for 18 as in the other nine countries.

[175] The weighted averages were calculated on the basic data summed across all nine countries. National output figures were converted into US dollars by applying 1970 exchange rates for real output and current exchange rates for nominal output. The unweighted average is simply the arithmetical average of the percentage branch shares of output and employment respectively, for the nine countries. The unweighted average is often a more significant standard of reference, since the weighted average is dominated by the largest countries.

[176] The index of consistency is calculated by dividing the index of structural change (C) by the *sum* of the year-to-year changes (also in percentage points) between 1970 and 1978.

If it is recalled that the last decade has been a period of rapid price increases, then the low degree of consistency for current output changes suggests not only that for certain branches relative price movements were able to offset relative movements in real output, but also that year-to-year changes in relative prices were relatively volatile.[177]

It is particularly interesting to compare the degree of structural change in the 1970s with that which occurred in the 1960s since the two periods are very different in respect of growth and inflation (see above). Moreover some of the specific events that have preoccupied much of the policy discussion in the 1970s (and some of them have in fact helped to determine the change in the economic environment) might be expected to have given extra stimulus to the forces making for changes in the structure of output and employment: for example, higher energy prices might be expected to reduce the relative growth of the more energy-intensive manufacturing branches while the alleged increase in the competitiveness of the so-called "newly industrializing countries" might have accelerated the decline of traditional labour-intensive industries such as textiles and clothing. However, against these factors making for an accelerated pace of structural change is the fact that in the past the rate of structural change has tended to be positively related to the rate of growth of total output.

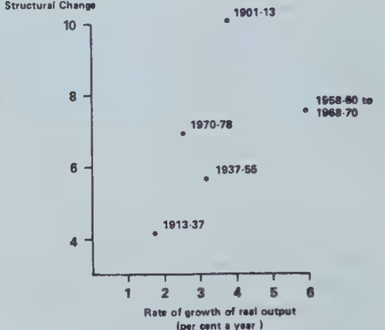
The indices of structural change in table 4.2.1 show in fact that the pace of change for real output and employment was higher in the 1960s than in the 1970s, although not by a large margin.[178] For the structure of output in current prices, however, the degree of change has been greater in the 1970s, a reflection of sharper changes in relative factor prices. Thus at a time when the need for "structural adjustment" in the industrial economies is said to be a matter of some urgency, the actual pace of structural change in terms of real output and, particularly, of employment appears to have decelerated.

The data for the 1970s can be placed in a larger historical perspective by comparing the indices of structural change for output at constant prices with those calculated for selected sub-periods from the beginning of the century. In chart 4.2.1 the ten-year rate of change of the index of structural change is plotted against the growth rate of total manufacturing as a whole for five periods from 1901 to 1978. The comparison of course is only a very rough one: the coefficients for 1901 to 1955 are based on a study[179] which divided value added in manufacturing into only eight branches, although the index of structural change between 1959 and 1969 for the six-branch structure is the same as that for 18 branches.[180] The data for 1901-1955 are for cyclical peak years and refer to ten west European countries: the nine to which the indices for 1970-1978 refer in table 4.2.1, plus Austria.

Chart 4.2.1 indicates that for the three periods between 1913 and 1968-1970 the rate of change in the structure of output rose fairly closely with the acceleration in the growth of total output. However, the period in which the rate of structural change of manufacturing output has been greatest was in the opening years of the century (1901-1913) when engineering was replacing food and drink as the major manufacturing branch: the growth of total output in this period was much the same as the average rate for 1937-1955, but the rate of structural change was more than double. For the most recent period, 1970 to 1978, there is probably some upward bias in the index of "structural" change due to the influence of cyclical factors. And although there are too few observations to establish a regular relationship between growth and structural change, nevertheless it does seem plausible to suggest that the pace of structural change in the 1970s, although somewhat lower than in the 1960s, is still higher than might have been expected given the sharp fall in the growth of real output.

CHART 4.2.1

Structural change and output growth in western European manufacturing industry, 1901-1978



Source: Data for 1901—1968-1970 are from Economic Commission for Europe, *Structure and Change in European Industry*, United Nations, New York, 1977, p. 16.

[a] Ten-year rate of change of index of structural change (C) for output at constant prices.

(i) The development of individual branch shares

Changes in the shares of 17 major branches[181] in total manufacturing output and employment for nine west European countries taken together are shown in chart 4.2.2 for the period 1970 to 1978. This chart indicates clearly a cyclical element in the development of many of the individual branch shares and, in particular, the presence of a major fluctuation in the period 1973-1975: it is stressed that in these years there was a sharp fluctuation about the longer run trend of many of the branch shares rather than a major shift in the underlying trends. This is discussed more fully below where linear time trends are fitted to the branch shares for individual countries.

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[177] As this section deals with value added at factor cost, prices refer to labour incomes and gross profits, excluding taxes and the prices of current inputs. A more detailed analysis of relative price changes will be presented in a later study.

[178] Comparisons between the two decades must be treated with caution in view of differences in cyclical variations and the quality of the basic statistics. See also footnote 188, p. 197 below.

[179] V. Paretti and G. Bloch, "Industrial Production in Western Europe and the United States 1901 to 1955", *Banca Nazionale de Lavoro Quarterly Review*, No. 39, 1956.

[180] *Structure and Change*, pp. 16-17.

[181] Because its share is insignificant the leather products branch has been included with clothing and footwear.

CHART 4.2.2

Western Europe: average branch shares of total manufacturing output and employment, 1970-1978

Percentage share in total manufacturing
Nine west European countries, weighted average

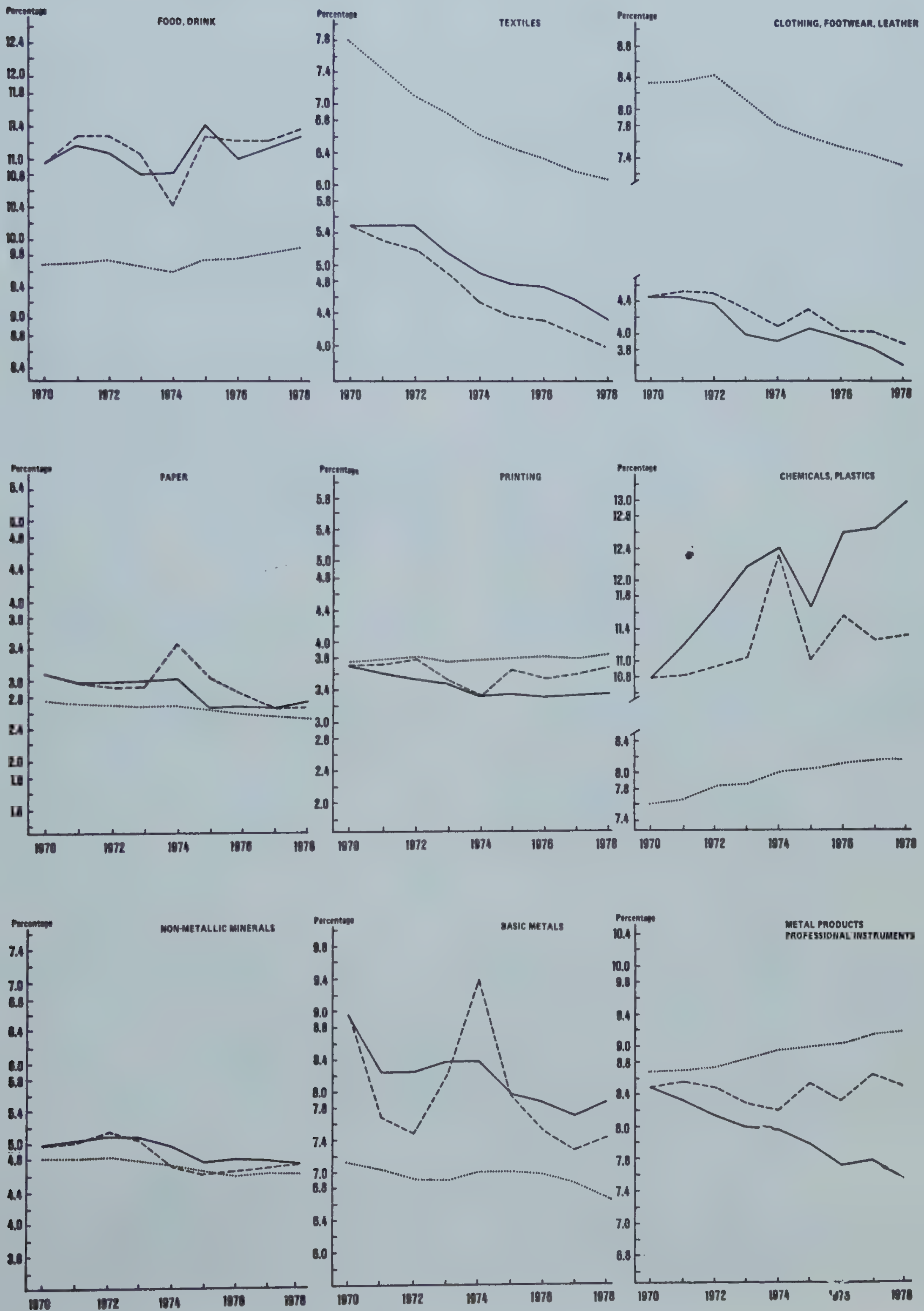
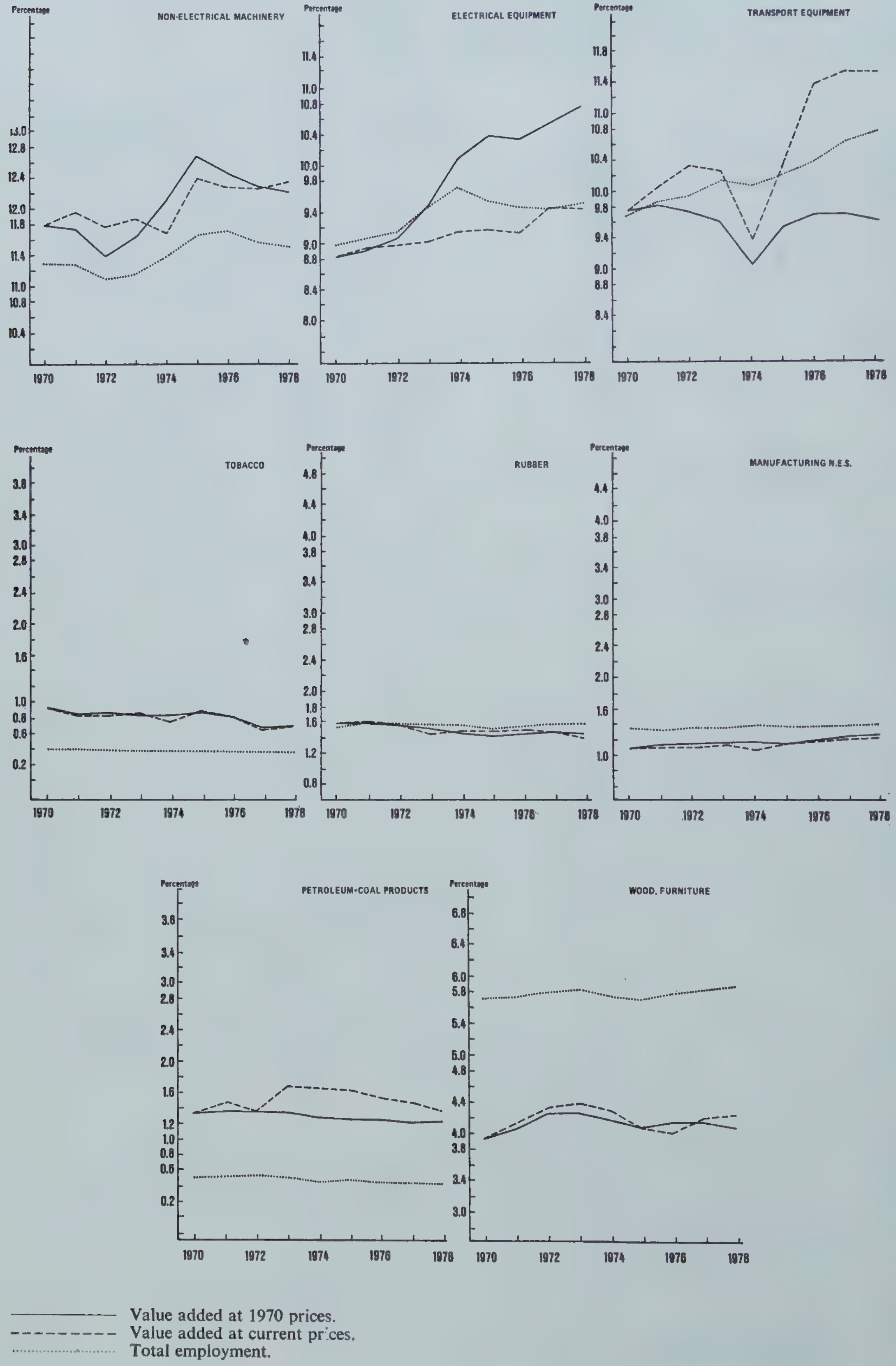


CHART 4.2.2 (*continued*)



The most prominent changes in branch shares, for western Europe as a whole, may be summarized as follows:

The only branches that increased their share of total real output by 1 percentage point or more between 1970 and 1978 are: chemicals (+2.2 points to 13 per cent); electrical equipment (+2.1 points to 11 per cent).

The advance of these two branches is roughly matched by the decreasing shares of: textiles, clothing, leather (−2.0 points to 8 per cent); basic metals (−1.1 points to 7.9 per cent); metal products (−1.2 points to 7.3 per cent).

It can be seen from chart 4.2.2 (and appendix table 4.A.1) that the changes in output shares for the other branches are all well below 1 percentage point and sometimes fairly small.[182]

The chart also shows the relatively smooth changes that have occurred in the branch shares of total manufacturing employment. The only branch with an increase in share of 1 percentage point or more in 1978 (compared with 1970) is transport equipment. And only in textiles was the decrease higher than 1 percentage point (−1.7 to −6.1 per cent).

Employment in chemicals and electrical machinery both rose by only 0.6 percentage points. This, together with the large rise in the output shares, suggests a considerably faster productivity growth than for total manufacturing, while the reverse holds true, for example, for transport equipment.

The differences in the cyclical patterns of the individual branches can be seen in the large swings in the branch shares in the period 1973-1976, i.e. immediately after the first oil price crisis and the recession of 1974-1975. The most prominent cases here are chemicals, basic metals and transport equipment. However, it is difficult to see any "permanent" upward or downward shifts of branch shares occurring after 1973. The main impression is that for some branches the immediate aftermath of 1973 was essentially a temporary interruption in the underlying movement for the period as a whole.

One exceptional branch in chart 4.2.2 is metal products where there has been, throughout the period, a steady rise in the employment share but a relatively rapid and almost continuous fall in its share of total (real) output. The sharp fall in productivity implied by these divergent trends, however, has been accompanied by relatively sharp increases in relative prices, particularly after 1974; indeed this is the only branch where a reversal in a branch share appears to have occurred: its share of current output was falling until 1974 when it began to increase albeit with considerable fluctuation.

A summary view of the individual branch movements between 1970 and 1978 is provided by chart 4.2.3, which shows the similarity index (*S*, as defined above) for the branch composition of output and employment, calculated on a year-to-year basis. It clearly reflects the extraordinary changes in branch shares between 1973 and 1975, especially for output. However, from chart 4.2.2 it is clear that it is only a small number of branches (mainly basic metals, chemicals, transport equipment and food) that account for the extreme values taken on by the similarity index in these years.[183]

This high degree of concentration of rising and falling branch shares can also be observed over the whole period. With a combined increase of 4.4 percentage points between 1970 and 1978 in real output, chemicals and electrical machinery account for about 80 per cent of the positive changes in branch shares for six branches (the others being food, wood, non-electrical machinery, and manufacturing industries n.e.s.) where the latter is a rather heterogeneous branch including activities such as the manufacturing of jewellery, musical instruments, sporting and athletic goods, as well as all activities not classified elsewhere. The offsetting falls in output shares on the other hand, were largely accounted for (about 75 per cent) by only four branches; textiles, clothing, basic metals, and metal products.

The year-to-year changes in the similarity indices do not indicate any persistent acceleration over the period as a whole in the pace of structural change in the nine countries combined. There was some acceleration in the output indices between 1970 and 1975, but this is heavily influenced by differences in the cyclical position of the different branches and is largely offset by the deceleration after 1975 (chart 4.2.3). For employment there is no tendency for structural change to accelerate and compared with the output indices the rate of change has fluctuated very little.

However, while there appears to be no acceleration in the over-all degree of structural change in the 1970s, it is equally clear from inspection of chart 4.2.2 that west European manufacturing industry is moving steadily away from the branch patterns of output and employment prevailing in 1970. This shift is shown in chart 4.2.4, which shows the degree of similarity between the branch patterns of output and employment in 1970 with each succeeding year. While the shift away from the 1970 pattern is relatively steady for real output and employment, the index is more erratic for current output, a reflection of the greater volatility of relative price movements. However, the general direction is clear. Western Europe is moving steadily out of industries where it has lost (or is losing) a comparative advantage, i.e. the low-skilled, labour-intensive industries such as textiles, clothing and leather, with compensating advances being made in chemicals and electrical machinery, i.e. branches with a relatively high skilled labour intensity and relatively large inputs of research and development activities.

(ii) Growth elasticities

As already shown, the degree of structural change in a given period depends on the over-all growth rate and the growth elasticities. These elasticities are given in table 4.2.2. The data suggest a subdivision of industrial branches (for the average of the nine countries) into three groups:

Those with high growth elasticities (around 2), i.e. average annual growth rates twice as high as that for total manufacturing (+2.5 per cent): chemicals; electrical machinery; manufacturing n.e.s.;

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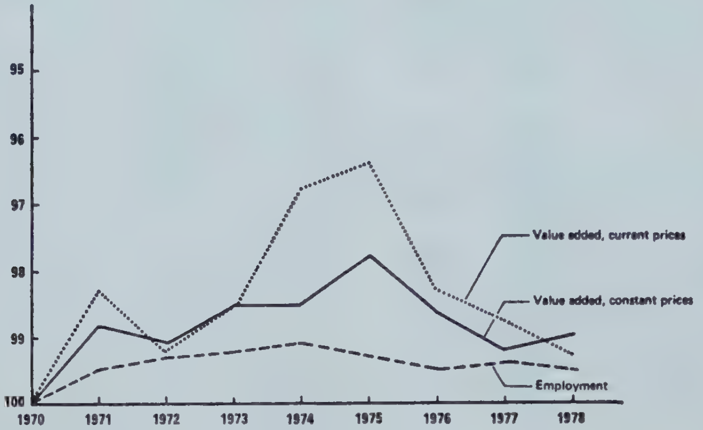
[182] Branch movements in the individual countries on occasion differ considerably from the average of nine countries shown here. This can be illustrated here by basic metals, which declined by only 0.5 percentage points if the unweighted average of the nine countries is taken (appendix table 4.A.1)—a clear indication of the large spread of movements in the individual countries.

[183] For example: basic metals and chemicals account for about 80 per cent of the *positive* changes in branch shares of current output between 1973 and 1974 and for about 75 per cent of all the *decreasing* shares between 1974 and 1975.

CHART 4.2.3

Indices of similarity between sucessive years of the output and employment structure of west European manufacturing industry,[a] 1970-1978

(Each preceeding year = 100)

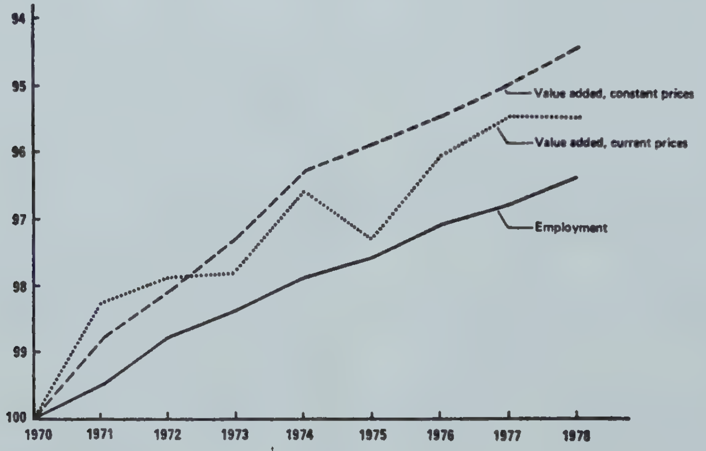


[a] Weighted average of nine west European countries.

CHART 4.2.4

Indices of similarity over time of the output and employment structure of west European manufacturing industry,[a] 1970-1978

(1970 = 100)



[a] Weighted average of nine west European countries.

Branches with growth elasticities of around 1 (0.9 to 1.2), i.e. average annual growth rates of about the same as that for total manufacturing: food; wood, furniture; non-electrical machinery; transport equipment;

Branches with a low or negative growth elasticity, for example, tobacco, textiles, paper, printing, etc. (in all, 11 branches).

It can be seen from the following table that the dynamic industries (chemicals, electrical machinery, "other") increased their share of real output by 4.6 percentage points, while the employment share rose by only 1.2 percentage points, a clear indication of the large productivity gains in these branches.

A point of great interest is whether the pattern of relative growth rates has changed in the wake of events follow-

Percentages

	Share of output		*Share of employment*	
	1970	*1978*	*1970*	*1978*
Group 1:				
High elasticity [a] . . .	20.7	25.3	17.9	19.1
Group 2:				
Elasticity around 1 [b] .	36.3	37.3	36.4	38.0
Group 3:				
Low and negative elasticity [c]	43.0	37.4	45.7	42.9
	100.0	100.0	100.0	100.0

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[a] Elasticity around 2.

[b] Elasticity between 0.9 and 1.2.

[c] Elasticity below 0.9.

ing the first oil price "explosion" at the end of 1973. With the sharp deceleration in total output growth in 1973-1978 to 1.3 per cent a year (for some countries, Sweden, Norway and the United Kingdom, the average rate is actually negative) the numerical values of the branch elasticities are very much larger than for the period 1970-1973 (table 4.2.2). However, a comparison of these two very different sub-periods of the 1970s shows that the hierarchy of relative growth rates is fairly stable: the Spearman rank correlation coefficient between the rankings of relative growth rates in the two periods is 0.73 (significant at 1 per cent). The largest changes in relative position are for non-metallic minerals (which moved from rank 5 in 1970-1973 to rank 11 an 1970-1978), wood, furniture (from rank 2 to 8) and petroleum products [184] (from rank 6 to 13). But these relatively large shifts in rank position (leather products and printing should also be included here) are concentrated on the smaller branches (cf. table 4.A.1) and this has dampened the effect of changes in relative growth rates on the overall measures of structural change discussed above.

TABLE 4.2.2

Branch growth elasticities of manufacturing output in western Europe, 1970-1978

(*Weighted average of nine countries*)

	1970-1978	*1970-1973*	*1973-1978*
Food and drink	1.17	0.91	1.72
Tobacco	−0.62	0.05	−2.07
Textiles	−0.20	0.51	−1.70
Clothing and footwear	−0.10	0.17	−0.69
Leather	0.02	0.06	−0.06
Wood	1.20	1.69	0.22
Paper	0.46	0.84	−0.34
Printing	0.56	0.57	0.53
Chemicals	1.98	1.95	2.07
Petroleum and coal products	0.75	1.17	0.13
Rubber	0.52	0.68	0.17
Non-metallic minerals	0.88	1.31	−0.03
Basic metals	0.35	0.50	0.04
Metal products	0.26	0.55	−0.36
Non-electrical machinery	1.18	0.90	1.79
Electrical machinery	2.14	1.57	3.35
Transport equipment	−0.93	0.88	1.04
Manufacturing n.e.s.	1.92	1.60	2.61
Total	1.00	1.00	1.00
Growth of total manufacturing output (*per cent per year*)	2.5	4.5	1.3

To what extent does the pattern of growth in the 1970s differ from that of the 1960s? In chart 4.2.5 the average growth elasticities for the period 1970 to 1978 have been plotted against those for the period 1958-1960 to 1968-1970.[185] It can be seen that while a number of branches cluster around the 45° line, representing approximately the same elasticity in both periods, the shifts are more dramatic for other branches. There is, notably, a remarkable fall in the relative growth of petroleum and coal products in the 1970s, and a relatively strong advance of electrical machinery. The high growth elasticity of the small group manufacturing industries n.e.s. in the 1970s is largely a reflection of a very rapid relative growth of this branch in Italy, the Netherlands, Sweden and the United Kingdom. Textiles, clothing, footwear, which were still showing positive growth rates in the 1960s, declined absolutely in the 1970s.

However, apart from the possibly more spurious movements recorded for relatively small industries such as "other" and petroleum products, the main impression conveyed by chart 4.2.5 is one of a generally well-preserved hierarchy of relative branch growth rates over the two periods.[186]

Finally, table 4.2.3 summarizes the direction of the changes in branch shares implied by the pattern of relative growth rates. It is clear that the direction of change did not alter very much between the two periods: the only case of a reversal in direction is the food products industry where the share of both total output and employment was falling in the 1960s but rising in the 1970s.

TABLE 4.2.3

Rising (+), falling (−) and stable (0) branch shares in west European manufacturing industry in the 1960s and 1970s [a]

	Output at constant prices		*Employment*	
	1958-1960 -1968-1970 [b]	*1970-1978*	*1958-1960 -1968-1970* [b]	*1970-1978*
Food	−	+	−	+
Tobacco products	−	−	−	0
Textiles	−	−	−	−
Clothing	−	−	−	−
Leather	−	0	−	0
Wood products and furniture	0	0	−	0
Paper	0	−	0	0
Printing	−	−	+	0
Chemicals	+	+	+	+
Petroleum products	+	0	0	0
Rubber products	0	0	0	0
Non-metallic minerals	0	0	−	0
Basic metals	−	−	−	−
Metal products	−	−	+	+
Non-electrical machinery	+	+	+	+
Electrical machinery	+	+	+	+
Transport	+	0	+	+
Manufacturing n.e.s.	0	+	0	0

[a] Nine west European countries combined. A stable share is defined as a change of less than 0.2 percentage points in either direction.

[b] Including Yugoslavia.

B. THE EXPERIENCE OF INDIVIDUAL COUNTRIES

Changes in the structure of output and employment between 1970 and 1978 are shown for west European countries in table 4.2.4; the indices of structural change

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[184] For petroleum and coal products the annual growth of real output fell from 5.3 per cent in the first period to −0.2 per cent in the second.

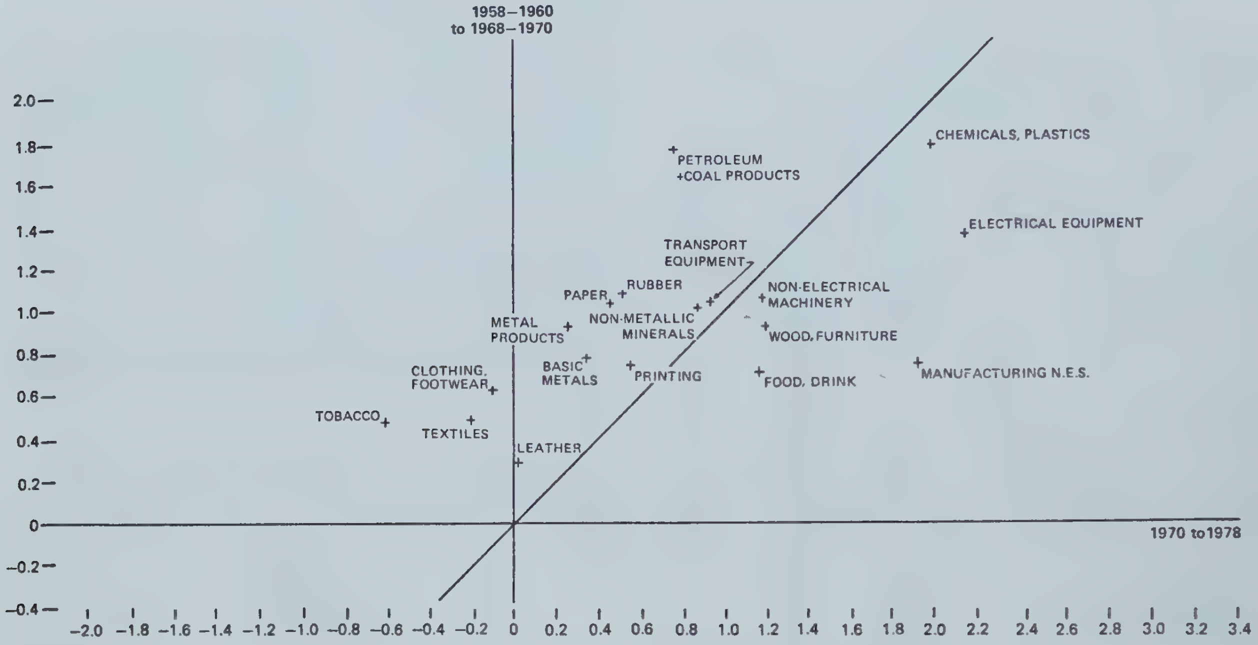
[185] The elasticities for the 1960s are taken from *Structure and Change*, p. 14, table 1.2.

[186] The Spearman rank correlation coefficient between the rankings of branch growth elasticities in the two periods is 0.61, which is significant at 1 per cent.

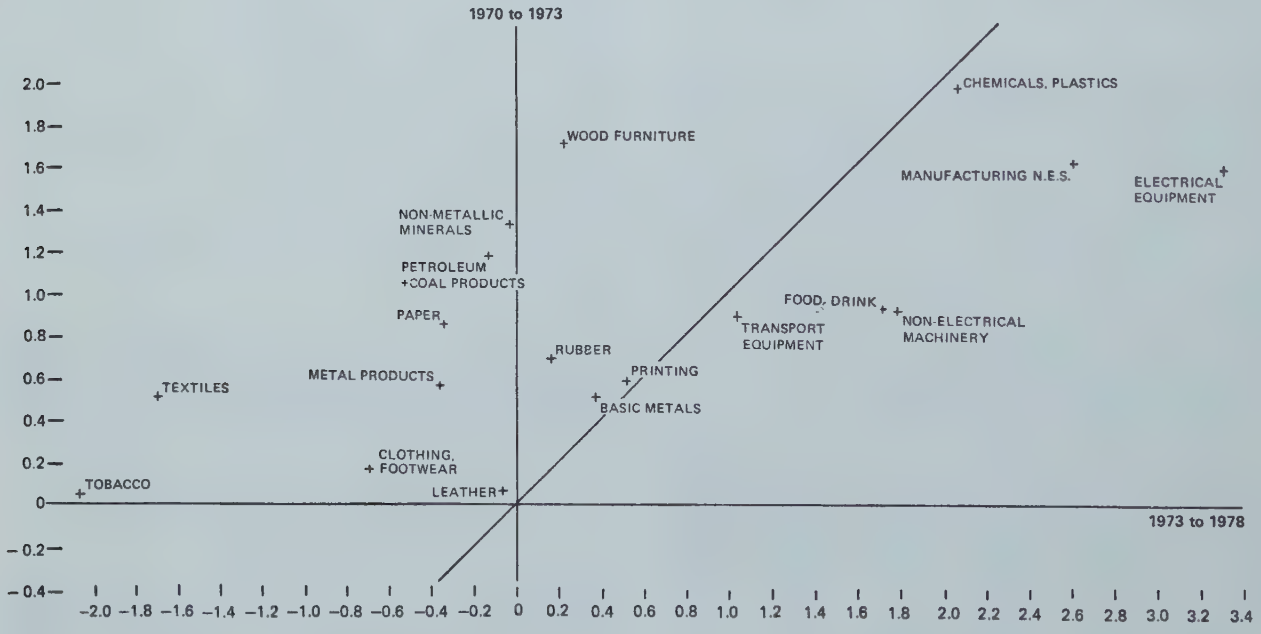
CHART 4.2.5

Growth elasticities[a] of real output for 18 manufacturing branches in western Europe, 1958-1960 to 1968-1970 and 1970 to 1978

(*a*) 1958-1960 to 1968-1970 and 1970 to 1978



(*b*) 1970 to 1973 and 1973 to 1978



[a] Ratio of the branch growth rate to that of total manufacturing.

TABLE 4.2.4

Degree of structural change in manufacturing output and employment, by country, in the 1960s and 1970s

Country	*Employment*		*Value added at constant prices*		*Value added at current prices*	
	1958-1960 -1968-1970	*1970 -1978* [a]	*1958-1960 -1968-1970*	*1970 -1978* [a]	*1958-1960 -1968-1970*	*1970 -1978* [a]
Austria [b]	..	6.8	..	6.7	..	..
Belgium	6.5	7.8	10.7	10.2	8.2	10.8
Finland	7.9	6.3	10.4	8.7	7.5	9.0
France	7.9	6.8	9.4	13.2	..	8.3
Germany, Federal Republic of	7.8	5.8	10.2	7.7	6.5	7.4
Italy	6.7	5.3	9.4	6.6	7.3	6.6
Netherlands	7.8	7.4	13.6	7.9	9.0	7.1
Norway	7.8	7.6	9.3	9.0	7.2	11.3
Sweden	6.7	7.4	11.2	6.8	5.6	11.3
United Kingdom	5.5	3.5	7.7	7.3	6.0	3.9

Source: Data for the 1960s from Economic Commission for Europe, *Structure and Change in European Industry*, United Nations, New York, 1977.

[a] Equivalent 10-year rate of change in index of structural change (*C*).

[b] For 15 branches of total manufacturing industry only.

are expressed in terms of 10-year rates of change in order to compare them with the equivalent data for the 1960s. Since inter-country differences in the rates of change are not in general very great, the basic pattern here is much the same for Europe as a whole.[187] With the exception of Austria and Sweden, changes in the structure of employment are smaller than for real output and in some cases, such as France and the United Kingdom, by quite a large margin. Employment structures also changed less than real output in the 1960s. The change in the structure of output at current prices in the 1970s is greater than that for real output in four countries (Belgium, Finland, Norway, Sweden), and less in France, the Federal Republic of Germany, the Netherlands, and the United Kingdom. This contrasts with the 1960s when the changes in current output were much less than real output in all countries. This suggests a greater volatility of relative price movements in the 1970s which have failed to offset the changes in real output by larger margins than in the 1960s (either by under- or over-compensating for the changes in real output shares).

Two of the more striking deviations from the average European pattern are France and the United Kingdom. There was a remarkably high rate of change in the structure of real output in France in the 1970s, both in relation to the other countries in the 1970s and to its own rate in the 1960s. This is mainly due to the rapid and above-average growth of three branches: electrical and non-electrical machinery, and manufactured foodstuffs; in contrast to the rest of western Europe, the growth of the French chemicals industry was relatively sluggish. In the United Kingdom the striking feature is the very low degree of change in the structures of employment and current output: the indices are low not only in comparison with the rest of Europe but also in relation to the United Kingdom figures for the 1960s. In contrast, the pace of change in the structure of real output is not much below the average for the ten countries in the 1970s and has not fallen much in comparison with the 1960s. Textiles and basic metals have shown the largest relative decline of all sectors in the United Kingdom and account for 80 and 70 per cent of all the declining shares in current output and employment respectively; however, the offsetting movements in other branches have been much less concentrated. The changes in individual branch shares have in general been quite small, suggesting a relatively rigid structure of relative prices and employment.

Except in Belgium, the change in employment structures appears to have slowed down in the 1970s,[188] not significantly in Norway and the Netherlands, but quite sharply elsewhere. A similar deceleration can be seen for the pace of change in the structure of real output, the most notable deviation being France where the pace accelerated mainly due to the rapid growth of electrical and non-electrical machinery. The slowdown in structural change is quite sharp in the Netherlands: this largely reflects a slowdown in the relative growth of chemicals which, in the 1960s, had been exceptionally dynamic and had increased their share of total (real) output from 10 to 20 per cent.

In terms simply of the *direction* of changes in branch shares there is little difference between the 1960s and the 1970s: declining branches in the 1960s continued to decline in the 1970s and vice versa. The number of reversals in direction, from a falling to a rising share of real output (and vice versa) is very limited: food products, for example, in France, Italy and the United Kingdom, basic metals in Belgium and Sweden; in the Federal Republic of Germany there are no reversals at all (table 4.2.5). A similar degree of stability in the direction of changes also holds for employment, most of the prominent reversals also occurring for food products (table 4.2.6).

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[187] The coefficient of variation about the mean rate of change in the 1970s ranges between 20 per cent for employment and 30 per cent for current-price output: this is somewhat higher than the 1960s when it ranged between 12 per cent for employment and 16 per cent for output at constant prices.

[188] These comparisons between the 1960s and the 1970s must be qualified insofar as the data used here for the 1960s have since been revised in a number of countries; improved and more detailed industrial statistics have become increasingly available since the Secretariat's previous study, *Structure and Change*, was completed. Owing to limitations of time the Secretariat has not yet been able to revise the earlier statistics and establish a fully consistent series for the whole period 1958-1978.

TABLE 4.2.5

Rising (+), falling (−) and stable* (0) branch shares in real output, by country, 1958-1960 to 1968-1970 (A) and 1970 to 1978 (B)

	Belgium		*Finland*		*France*		*Germany, Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*United Kingdom*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
Food	−	−	−	−	−	+	−	−	−	+	−	0	−	0	−	0	−	+
Tobacco	−	0	0	0	0	0	0	0	−	0	−	0	−	0	0	0	0	0
Textiles	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
Clothing	−	−	−	−	−	−	−	−	0	−	−	−	−	−	−	−	−	+
Leather	−	0	−	0	−	0	−	0	+	0	−	−	−	0	−	0	−	0
Wood	+	+	−	−	0	+	−	0	−	+	+	−	+	+	+	+	−	0
Paper	+	0	+	−	+	−	−	−	+	0	+	0	0	−	+	+	0	−
Printing	−	−	−	+	−	−	−	−	−	0	0	0	+	−	−	−	0	+
Chemicals	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Petroleum	0	−	+	+	+	0	+	0	+	−	0	0	+	+	+	+	+	0
Rubber	−	0	0	−	0	−	0	0	+	−	0	0	0	0	+	−	0	0
Non-metallic minerals	−	0	+	−	+	0	−	−	−	−	−	−	−	−	−	−	+	+
Basic metals	+	−	+	+	−	−	−	−	+	+	+	−	+	+	+	−	−	−
Metal products	+	0	+	0	0	−	−	0	−	−	−	0	+	−	+	−	−	−
Non-electrical machinery	+	+	−	+	+	+	−	−	+	−	+	+	0	+	+	0	+	−
Electrical machinery	+	+	+	+	+	+	+	+	+	−	+	+	+	+	+	+	+	+
Transport	+	+	−	0	+	−	+	+	+	−	−	−	−	−	+	+	−	−
Manufacturing n.e.s.	0	+	+	0	0	+	0	0	−	+	−	+	0	−	−	0	0	0

* A *stable* share is defined as a change of less than 0.2 percentage points in either direction.

TABLE 4.2.6

Rising (+), falling (−) and stable* (0) branch shares in total manufacturing employment, by country, 1958-1960 to 1968-1970 (A) and 1970 to 1978 (B)

	Belgium		*Finland*		*France*		*Germany, Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*United Kingdom*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
Food and drink	−	+	+	−	−	+	−	+	−	−	−	+	−	0	−	0	0	+
Tobacco	0	0	0	0	0	0	−	0	−	0	−	0	0	0	0	0	0	0
Textiles	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
Clothing	−	−	−	−	−	−	−	−	−	0	−	−	−	−	−	−	−	0
Leather	−	−	−	−	−	−	−	0	0	0	−	−	0	−	−	−	0	0
Wood	0	0	−	−	−	0	−	0	−	−	0	0	−	+	0	−	0	+
Paper	+	−	+	+	0	0	0	−	0	0	+	0	−	−	−	+	0	0
Printing	+	0	0	+	+	0	+	0	+	+	+	+	+	0	+	0	+	0
Chemicals	+	+	+	+	+	−	+	+	+	+	+	+	+	+	+	+	+	+
Petroleum	0	0	0	+	0	0	0	0	0	0	0	+	+	0	0	+	0	+
Rubber	0	0	0	0	+	+	+	0	+	0	0	0	0	−	0	−	0	0
Non-metallic minerals	−	−	+	−	0	0	−	−	0	−	−	0	−	0	0	−	0	0
Basic metals	−	+	+	+	−	−	−	−	0	+	+	+	+	−	+	0	−	−
Metal products	+	+	+	+	+	+	+	+	+	+	+	0	+	−	+	+	+	+
Non-electrical machinery	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	−	+	−
Electrical machinery	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	0
Transport	+	+	0	+	+	+	+	+	+	+	−	+	+	+	+	+	−	+
Manufacturing n.e.s.	+	0	0	0	+	+	0	0	−	0	−	+	0	−	−	0	0	0

* A *stable* share is defined as a change of less than 0.2 percentage points in either direction.

Chart 4.2.6

Indices of similarity between output and employment structures in successive years for ten countries

(*Preceding year = 100*)

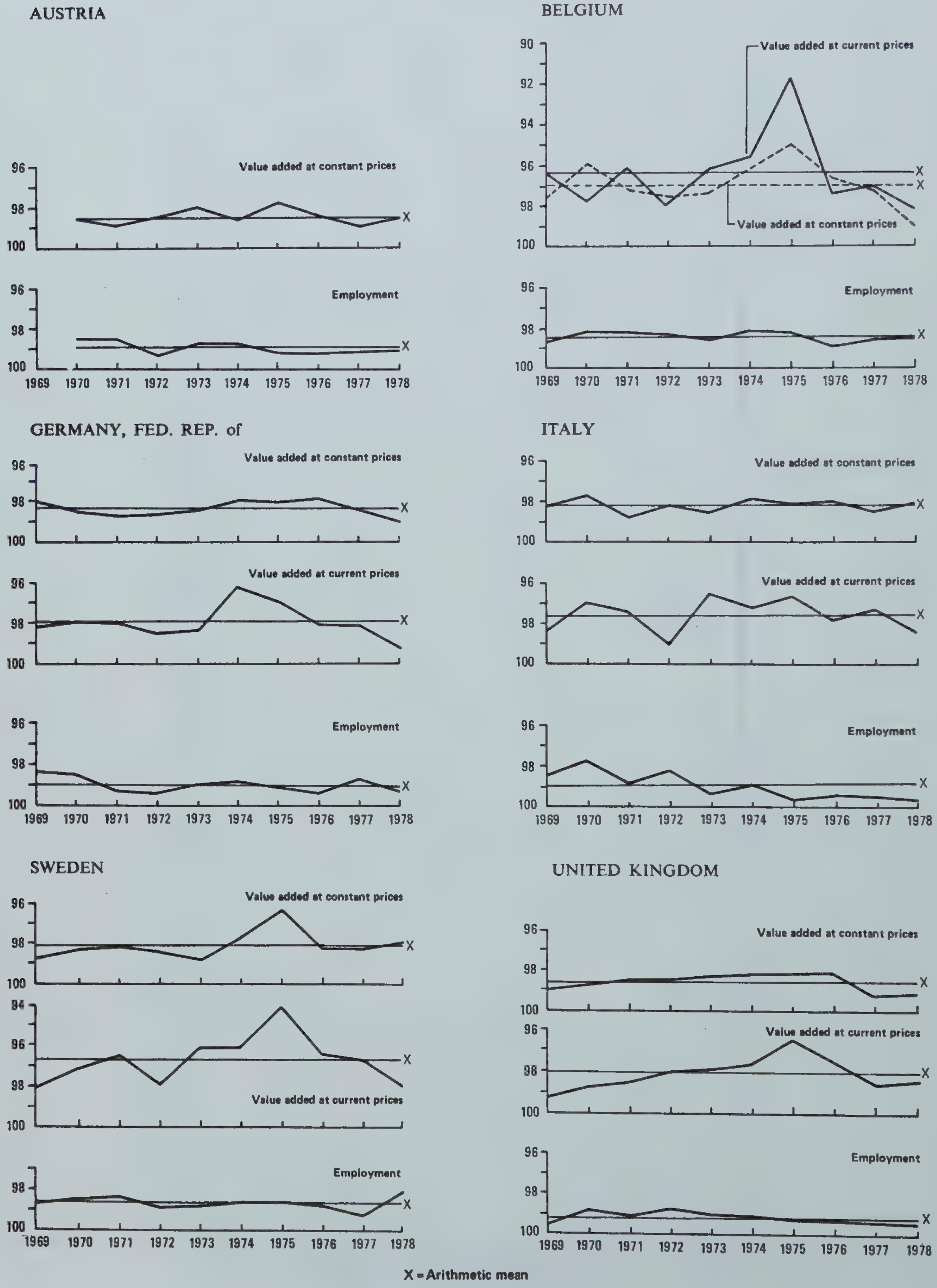
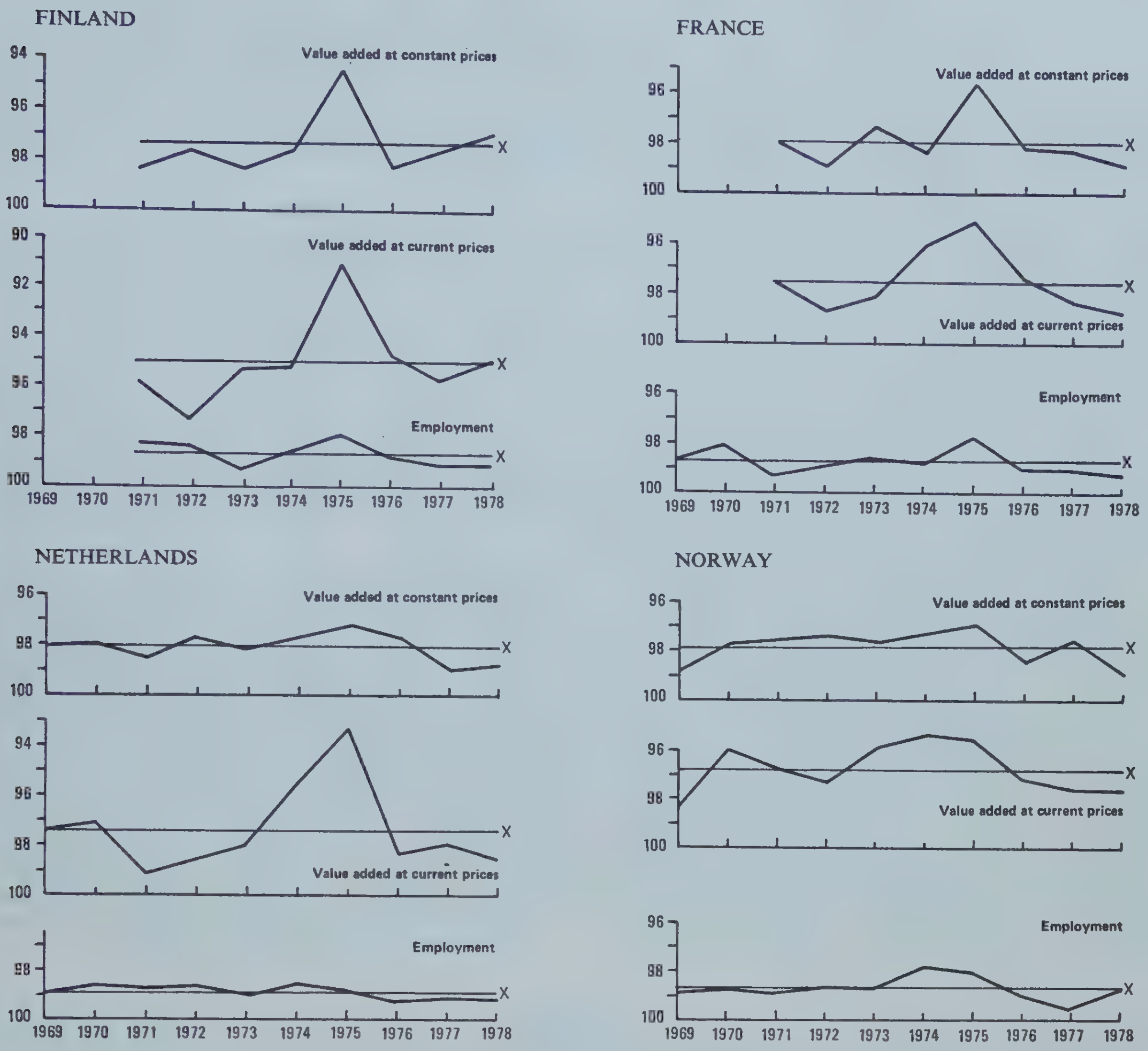


Chart 4.2.6 (*continued*)



The consistency of the changes in output and employment structures in the individual countries in the 1970s is fairly close to the pattern for western Europe as a whole (see table 4.2.1). The *direction* of the changes in branch employment shares has been more stable than the year-to-year changes in real output, while changes in the structure of current output have shown the greatest tendency to be reversed:

Index of consistency of structural change

(1970-1978)

Country	*Employment*	*Real output*	*Current output*
Austria	0.67	0.42	. .
Belgium	0.49	0.35	0.29
Finland	0.47	0.32	0.18
France	0.57	0.61	0.33
Germany, Federal Republic of	0.64	0.46	0.35
Italy	0.65	0.38	0.27
Netherlands	0.66	0.42	0.27
Norway	0.57	0.39	0.34
Sweden	0.55	0.33	0.32
United Kingdom	0.42	0.48	0.18

The year-to-year changes in the branch patterns of output and employment are shown for all countries in the form of similarity indices in chart 4.2.6. These indicate relatively large changes in individual branch shares, particularly for output, in the period 1974-1976, but these changes tended to be reversed in the following years. This suggests that the oil price explosion of 1973 and the subsequent recession of 1974-1975, the most severe of the post-war period, did not in themselves lead to any acceleration in the pace of structural change in manufacturing industry. The fluctuation in the index of structural change for these years thus appears to reflect largely the impact of an (hitherto) abnormal recession on a normal cyclical variation in branch shares.[189]

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[189] Linear time trends were fitted to the year-to-year changes in the similarity indices given in chart 4.2.6. None of the equations were significant, thus providing no evidence, in any of the nine countries, of an acceleration in the underlying rate of structural change in the period 1970-1978.

(i) Time trends in the branch shares of output and employment

So far, this chapter has discussed structural change largely in terms of changes in branch shares between selected years. The previous paragraphs point to a possible drawback of this approach, namely that the measurement of structural change may be affected by differences in the cyclical position of the different industries or branches: it is well known, for example, that the textiles and clothing industries tend to lead cyclical changes in total output while machinery and other capital goods tend to lag behind. (This cyclical component of indices of structural change was discussed above in terms of "reversals" and "consistency" indices.) At relatively high levels of aggregation a short-cut solution to this problem is simply to select years for comparison where the phase of the business cycle is similar, but this will be less satisfactory the more total manufacturing is disaggregated into individual industries. The solution adopted here is to fit time trends to the annual data for individual branch shares of total manufacturing employment and output between 1968 and 1970. The measurement of structural change is then based on the regression coefficients which, in principle, separate the underlying rates of change from cyclical variations in branch shares. The results of this exercise are summarized in tables 4.2.7-4.2.9 which contain the regression coefficients of the estimated linear trend equations. Coefficients which are not significantly different from zero have been excluded: these are the branches whose shares of total manufacturing output and employment have remained more or less stable and which, therefore, have made no significant contribution to the over-all index of structural change. Structural change obviously implies that higher than average growth in certain sectors must be offset by less than average growth in others: this characteristic is preserved in tables 4.2.7-4.2.9 since the regression coefficients (for each country) sum to zero.[190] In other words the coefficients not only indicate the significant changes in branch shares but also the precise extent to which the changes offset one another. However, since these tables include only the significant coefficients they do not always sum to zero: the remaining offset is provided by statistically non-significant movements in the shares of the omitted branches.

A comparison of the two measures of structural change—one based on trends, the other on actual changes in shares between two single years—is given in table 4.2.10. For employment and output at constant prices the index of structural change based on trends is somewhat lower than that based on end-years, but for the most part the differences are small and there is little difference in the rank order of countries according to the two measures. However there are some very large differences between the two measures of structural change in respect of output at current prices. In these cases the measure based on the regression coefficients gives a much smaller rate of change than the end-year comparison. This

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[190] If the same functional form is fitted by least-squares to the *n* components of an aggregate (i.e. the sum of the dependent variables is 1.0), then the sum of the *n* intercepts is 1.0 and the sum of the *n* regression coefficients is zero. For a proof of this see G. D. N. Worswick, "A Note on the Adding-Up Criteria", *The Review of Economic Studies*, XXII(1), No. 57, 1954-55. In order to preserve the "adding up" property functional forms which involve a logarithmic transformation of the dependent variable must be excluded. The application of the same functional form to all 18 industries in 9 or 11 countries may of course lead to wrong conclusions as to the significance of individual branch movements. Experiments with a number of alternative forms however suggest that this is not a problem with the data of the present exercise. There are only two cases where the regression coefficient is not significant in the linear retression but is significant in an exponential equation: both concern output at current prices and are basic metals in Belgium, where the exponential coefficient is negative, and petroleum products in Norway, where it is positive.

TABLE 4.2.7

Linear time trends in the branch shares of total manufacturing employment, 1968-1978: significant [a] regression coefficients

Branch	*Belgium*	*Finland* [b]	*France*	*Germany, Fed. Rep. of*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*United Kingdom*	*Austria* [c]	*Switzerland*
Food, drink					−0.073	0.053	−0.071	−0.072	0.037		0.089
Tobacco products		−0.004	−0.004	−0.014	−0.012		−0.001	0.003		−0.011	
Textiles	−0.315	−0.242	−0.245	−0.202	−0.384	−0.314	−0.147	−0.179	−0.179	−0.267	−0.154
Clothing, footwear	−0.243	−0.105	−0.218	−0.227		−0.396	−0.263	−0.298		−0.143	−0.235
Leather	−0.022	−0.025	−0.049	−0.026		−0.043	−0.035	−0.032	−0.005	−0.049	[e]
Wood, furniture	0.023	−0.200	−0.032		−0.041	−0.024	0.089	−0.077	0.050		−0.048
Paper	−0.033		−0.017	−0.037			−0.158	0.045		−0.062	0.003
Printing		0.046			0.022	0.111			0.014		0.051
Chemicals, plastics	0.221	0.062		0.139	0.125	0.071	0.061	0.109	0.081	0.079 [d]	0.191 [f]
Petroleum products	−0.014	0.028	−0.012		−0.003	0.029	−0.002				
Rubber products			0.048	−0.009		−0.012	−0.052	−0.030			
Non-metallic minerals	−0.125	−0.034	−0.013	−0.034	−0.068	−0.027		−0.135	−0.020		−0.043
Basic metals	0.158	0.116	−0.097	−0.057	0.109	0.072	−0.021	0.031	−0.082		−0.130
Metal products	0.081	0.111	0.114	0.047	0.112			0.204	0.062		
Non-electrical machinery	0.100		0.224	0.078		0.168	0.329			0.083	0.256 [g]
Electrical equipment	0.185	0.197	0.132	0.149	0.196	0.096	0.169	0.176		0.234	
Transport equipment		0.079	0.208	0.209	0.095	0.133	0.149	0.209	0.068	0.194	
Manufacturing n.e.s.	−0.024		0.030		0.020	0.064	−0.047	−0.017			0.021

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

[b] 1970-1978.

[c] 1969-1978.

[d] Includes rubber products.

[e] Included in "manufacturing n.e.s." (also includes leather repairs.

[f] Plastics are included in "manufacturing n.e.s.".

[g] Transport includes repairs.

TABLE 4.2.8

Linear time trends in the branch shares of total manufacturing output at constant prices, 1968-1978: significant [a] regression coefficients

Branch	*Belgium*	*Finland* [b]	*France* [b]	*Germany, Fed. Rep. of*	*Italy*	*Nether-lands*	*Norway*	*Sweden*	*United Kingdom*	*Austria* [c]
Food, drink		−0.202	0.225	−0.185					0.067	
Tobacco products	−0.013	−0.011	−0.119	−0.012	−0.010		−0.012	0.006		−0.019
Textiles	−0.313		−0.259	−0.155	−0.097	−0.218	−0.101	−0.064	−0.108	−0.206
Clothing, footwear	−0.221		−0.077	−0.149	−0.101	−0.213	−0.220	−0.171	0.022	−0.075
Leather	−0.031	−0.016		−0.022		−0.036	−0.012	−0.017	−0.010	−0.067
Wood, furniture	0.046	−0.308			0.086	−0.082	0.191			
Paper	−0.026	−0.454	−0.031	−0.059		−0.048	−0.164		−0.045	−0.045
Printing	−0.165	0.066	−0.058	−0.036	−0.050		−0.173	−0.094	0.021	
Chemicals, plastics	0.464		0.091	0.305	0.272	0.488		0.186	0.342	0.278 [d]
Petroleum products	−0.029			−0.019	−0.036		0.114			−0.048
Rubber products	0.023	−0.032	−0.032	−0.028	−0.027	−0.013	−0.015	−0.032		
Non-metallic minerals					−0.051	−0.082	−0.029	−0.133		
Basic metals	−0.397	0.237	−0.275				0.263	−0.138	−0.212	−0.153
Metal products		0.069	−0.476	−0.025	−0.112	0.073	−0.055		−0.064	0.094
Non-electrical machinery	0.226	0.359	0.505				0.227	0.095		
Electrical equipment	0.283		0.528	0.364		0.159	0.160	0.276	0.182	0.237
Transport equipment	0.203			0.151		−0.135	−0.116	0.137	−0.216	
Manufacturing n.e.s.	0.034	−0.017	0.022	−0.016	0.061	0.118	−0.028	0.015		

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

[b] 1970-1978.

[c] 1969-1978.

[d] Includes rubber products.

TABLE 4.2.9

Linear time trends in the branch shares of total manufacturing output at current prices, 1968-1978: significant [a] regression coefficients

Branch	*Belgium*	*Finland* [b]	*France* [b]	*Germany, Fed. Rep. of*	*Italy*	*Nether-lands*	*Norway*	*Sweden*	*United Kingdom*	*Austria* [c]
Food, drink			0.252	−0.142	−0.199	0.159				−0.385
Tobacco products		−0.022	−0.120		−0.031				0.026	
Textiles	−0.340	−0.134	−0.223	−0.224	−0.277	−0.269	−0.192	−0.136	−0.129	−0.483
Clothing, footwear	−0.096		−0.049	−0.151	0.153	−0.184	−0.268	−0.179		
Leather	−0.032	−0.014		−0.017		−0.031	−0.020	−0.023	−0.006	
Wood, furniture				0.065					0.050	−0.063
Paper	−0.040			−0.049		−0.057	−0.193			
Printing		0.220			−0.061	0.167			−0.053	
Chemicals, plastics	0.465				−0.095			0.062	0.079	0.164 [d]
Petroleum products	−0.047				−0.036				0.079	0.125
Rubber products				−0.021			−0.061	−0.040		
Non-metallic minerals				−0.090	−0.072			−0.130	0.048	−0.098
Basic metals								−0.232		
Metal products		0.129	−0.117	0.055	0.236					0.860
Non-electrical machinery				0.117	0.235	0.213	0.452			
Electrical equipment	0.196		0.054	0.179			0.134	0.162		
Transport equipment			0.378	0.259	0.144		0.309	0.505		
Manufacturing n.e.s.	0.054				0.040	0.123	−0.034	−0.016		

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

[b] 1970-1978.

[c] 1969-1978.

[d] Includes rubber products.

TABLE 4.2.10

The degree of structural change 1968 to 1978—a comparison of alternative estimates [a]

	Employment		*Output at constant prices*		*Output at current prices*	
	A	*B*	*A*	*B*	*A*	*B*
Austria	6.6	5.6	6.9	6.1	..	10.9
Belgium	8.4	7.7	13.1	12.4	9.3	6.4
Finland	6.3	5.6	8.6	8.0	9.0	2.3
France	7.6	6.5	13.4	12.1	8.3	5.4
Germany, Federal Republic of	6.5	6.1	8.7	7.6	8.0	6.8
Italy	7.0	6.3	4.9	4.5	7.9	7.9
Netherlands	7.8	8.1	8.4	8.3	7.5	6.6
Norway	7.6	8.0	9.2	9.4	11.9	8.3
Sweden	8.1	8.0	7.3	6.8	7.6	7.4
United Kingdom	2.9	3.0	6.4	6.5	3.0	2.4

[a] Estimate A is the sum of percentage point changes of the same sign in branch shares between 1968 and 1978; Estimate B is half the absolute sum of all the significant regression coefficients in tables 4.2.7-4.2.9 multiplied by 10.

reflects the large number of branches for which there was no significant time trend in their shares of total manufacturing output. In Finland, where the difference between the two measures is largest, only 5 out of 18 sectors displayed a significant time trend over the period; for real output, on the other hand, there were significant trends in 11 branches. This, and the size of the difference between the two measures, suggests that changes in relative price have not in many cases showed significant trends but, nevertheless, have tended to fluctuate sharply.

The extent to which the pattern of structural change has been similar throughout western Europe is indicated in table 4.2.11 which distributes the nine countries according to the direction of the trend in branch shares (Austria and Switzerland are excluded from the table because the branch definitions differ from those in the other countries). There is clearly some agreement at the two extremes of the relative growth spectrum. In nearly all countries the relative importance of chemicals and machinery has been on a rising trend throughout the period 1968-1978: this statement is slightly qualified in the case of non-electrical machinery for which the share was stable in four countries, but these are the three sectors where there was no relative decline in any of the nine countries either in terms of real output or of employment. At the other end of the scale the decline of textiles, clothing, footwear, leather, paper and rubber products is also general although in terms of employment the fall has been somewhat attenuated in the case of the last two branches. These are the two groups of industries where the changing pattern of western Europe's comparative advantage are perhaps most obvious: rising in the more advanced, capital-intensive industries such as chemicals and machinery, falling in the traditional labour-intensive sectors such as textiles and clothing. In between these two groups the trends in branch shares are rather more varied among countries and there also tends to be a greater contrast between the trends for real output and for employment. The shares of food and drink, petroleum products and non-metallic minerals in total manufacturing output (at constant prices) have tended to remain fairly stable (zero trends in five countries), but those of transport equipment and basic metals are more evenly divided between rising, falling and stable relative shares. The diversity among countries in respect of these latter branches is partly due to different trends in the components of what are in fact fairly heterogeneous branches (transport equipment includes shipbuilding and aircraft as well as motor cars); but it also reflects the varying response of west European countries to the increased competitiveness of outside suppliers of these products. These are the manufacturing branches which contain a number of activities in which western Europe's comparative advantage has been declining over a number of years (shipbuilding, various internationally standardized grades of steel, etc.). In this context it is relevant to note the falls in productivity (implied by the contrasting trends for real output and for employment shares) in transport, basic metals and metal products and the increases in their relative (value added) prices: at current prices the share of transport equipment in total output rose in five countries and fell in none; at constant prices it rose in three and fell in three.

One significant feature of the coefficients presented in tables 4.2.7-4.2.9 is the extent to which the over-all degree of structural change is dominated by just a few branches. In each country there are, first of all, a handful of branches with non-significant trends which, therefore, contribute nothing to the index of structural change—for output at constant prices these number between two (Norway) and seven branches (Finland, Italy and the United Kingdom), and for employment between three and eight. Secondly, many of the significant coefficients are relatively small so that most of the change in structure is due, on average, to about one-third of all the branches. The composition of this group varies somewhat between countries, but for employment it consists mainly of textiles, clothing and footwear, chemicals, non-electrical machinery, electrical equipment, and transport equipment: for most countries these branches account for some two-thirds or more of the change in the structure of manufacturing employment between 1968 and 1978 (somewhat less in Finland, Sweden and the United Kingdom, but still more than half). For output at constant prices the over-all degree of structural change is again dominated by six or seven branches, although these are not always the same as those dominating the change in employment—for output basic metals make a relatively large contribution in six of the nine countries,

Table 4.2.11

Rising, stable and falling branch shares of total manufacturing in nine countries, 1968-1978[a]

Branch	*Output at constant prices*			*Employment*			*Output at current prices*		
	Rising	*Stable*	*Falling*	*Rising*	*Stable*	*Falling*	*Rising*	*Stable*	*Falling*
Chemicals	7	2	0	8	1	0	3	5	1
Electrical machinery	7	2	0	8	1	0	5	4	0
Non-electrical machinery	5	4	0	5	4	0	4	5	0
Manufacturing n.e.s.	4	2	3	3	3	3	3	4	2
Transport equipment	3	3	3	8	1	0	5	4	0
Wood and furniture	3	4	2	3	1	5	2	7	0
Food and drink	2	5	2	2	4	3	2	5	2
Petroleum products	1	5	3	2	3	4	1	6	2
Non-metallic minerals	0	5	4	0	1	8	1	5	3
Basic metals	2	3	4	5	0	4	0	8	1
Metal products	2	2	5	7	2	0	3	5	1
Tobacco products	1	2	6	1	3	5	1	5	3
Printing and publishing	2	1	6	4	5	0	2	5	2
Rubber products	1	1	7	1	4	4	—	6	3
Paper	0	2	7	1	4	4	0	5	4
Leather	0	2	7	0	1	8	0	2	7
Clothing and footwear	1	1	7	0	2	7	1	2	6
Textiles	0	1	8	0	0	9	0	0	9

Source: Tables 4.2.5-4.2.7.

[a] The nine countries (Austria and Switzerland excluded) are grouped according to the sign of the regression coefficients in the linear trend equations: a stable share is one where the regression coefficient is not significantly different from zero at 5 per cent.

while wood and furniture and paper are important in Finland and Norway. In the case of output at current prices the individual branch contributions to the change in structure is even more concentrated than for employment and real output.

The regression coefficients indicate the underlying rates and patterns of structural change over the decade from 1968. However, a question of major interest is whether there has been any significant modification to these trends in the aftermath of the first oil price "explosion" of 1973-1974 and the subsequent recession of 1974-1975. It is widely assumed that these events have led to important changes in the structure of the western market economies: *inter alia*, it is taken for granted that there must be an inevitable slowing-down in the relative growth of energy-intensive manufacturing activities. However, it is not easy to test such assertions empirically: the period elapsed since 1973 is still relatively short, and for the purposes of statistical testing is even shorter due to the two- or three-year lag with which detailed industrial statistics become available. This restriction on the available degrees of freedom is an important qualification to any statement concerning the degree of change in the structure of manufacturing output and employment since 1973. The approach adopted here is fairly simple and the conclusions must be regarded as tentative.

In the previous section the analysis of year-to-year changes in similarity and consistency revealed that for most countries there was a large fluctuation in the relevant indices in 1974-1975: i.e. a sharp increase in dissimilarity was quickly reversed, the annual changes then reverting to their longer run trend (see chart 4.2.6). In terms of the analysis of time trends in the branch shares of total manufacturing output and employment, this suggests either larger than average deviations from the long-term trend in these years or a once-for-all shift in the trend line. To examine this possibility the linear trend equations were re-estimated with the inclusion of a dummy variable to distinguish the two periods 1968-1973 and 1974-1978: a significant coefficient on the dummy would then suggest that an upward or downward shift in the share of the branch concerned did occur after 1973 but that the annual rate of increase or decline continued more or less as before. Out of 177 linear equations (18 branches and 9 countries plus 15 branches for Austria) there were only 19 significant coefficients on the dummy variable for output at constant prices and 21 for employment (when the exponential time trends were estimated with the dummy variable a further two coefficients were significant for output and a further five for employment).

These shifts in the trends of branch shares after 1973 are not greatly concentrated either by country or manufacturing branch. For output at constant prices Italy has the largest number of significant dummies (four), followed by Belgium, the Netherlands and Norway (three each): the remaining six have only one or two significant coefficients. For employment, the Netherlands and Norway are again among those with the largest number of significant shifts in the trend of branch shares (seven and five respectively). But in contrast with output, the Federal Republic of Germany has five significant shifts for employment while Italy has none. Again the remaining countries have only one or two significant shifts (except for Finland where there are none).

For output at constant prices the largest branch concentration of significant shifts in trend is in non-electrical machinery (Belgium, Italy, the Netherlands and Norway), followed by metal products (Belgium, the Netherlands and the United Kingdom). In all seven cases the shift is positive (upward) while the coefficients on time are negative or non-significant. This, and the nature of the branches which contain a high proportion of capital goods, suggest that these significant upward shifts in branch shares may, at least to some extent, be a reflection of the lag with which the capital goods sector follows the trend of total output rather than evidence of a fundamental shift in the structure of manufacturing output. The remaining significant dummies are scattered about with no very obvious branch or country pattern. It is perhaps what has *not* happened that is significant here: there is no widespread downward shift after 1973 in the decline of traditional labour-intensive industries. There is a significant and negative dummy for textiles in the United Kingdom, and for clothing and footwear in Norway, but these are the exceptions. And there has not been a significant shift in the trend of the shares of the most energy-intensive branches such as chemicals, petroleum products, basic metals, non-metallic minerals, and paper. The dummy is significant and negative for chemicals only in Austria, negative for petroleum products only in Austria and Italy, and for non-metallic minerals is positive in the Federal Republic of Germany and negative in Italy. Such a distribution of the coefficients points to specific country circumstances rather than any underlying factor as the explanation of these particular shifts in branch trends.

The branch distribution of the significant dummy coefficients for employment is even less concentrated than that for constant price output. Only two branches have as many as three countries with significant coefficients: they are non-metallic minerals (negative for the Netherlands and the United Kingdom, positive for France) and basic metals (positive in France, the Federal Republic of Germany, and the Netherlands). As in the case of output, there is no evidence of a general downward shift in the trend of relative employment growth in the traditional labour-intensive sectors or in the most energy-intensive ones.

For output at current prices there are 17 significant coefficients on the dummy variable out of 162 equations (18 branches and 9 countries; Austria is ignored here as the number of branches available in current prices is only nine). As was the case for employment and constant price output, the number of significant coefficients in any one country is small (a maximum of three, in Belgium, France, the Federal Republic of Germany and the Netherlands; none in Italy and Sweden), and the largest concentration in any one branch is in non-metallic minerals (France, the Federal Republic of Germany and the Netherlands—all negative).

These shifts in the trends of branch shares in total output and employment after 1973 neither reinforce nor contradict the underlying pattern of structural change over the whole period 1968-1978; the main exception to this is non-electrical machinery where the coefficients on the dummy variable indicate an upward shift in its share of real output. The significant shifts do not fall into any clear branch pattern and in all countries the number of branches affected is quite small. Insofar as there has been some shift in the pace of structural change after 1973 it is even more concentrated in a few branches than the change for the whole period.

The contribution of shifts in the trend of individual branch shares after 1973 to the total index of structural change is generally quite small:

Contribution of significant dummy coefficients to index of structural change 1968-1978

(*Percentages*)

	Employment	*Output at constant prices*	*Output at current prices*
Belgium	10.3	11.7	20.5
Finland	—	0.8	3.8
France	6.9	0.5	11.7
Germany, Federal Republic of	7.6	2.9	18.2
Italy	—	16.3	—
Netherlands	9.7	10.2	11.1
Norway	14.5	8.4	11.2
Sweden	9.1	6.5	—
United Kingdom	4.7	5.5	20.6

On average the contribution to the index of structural change for employment and real output is about 7 per cent, and nearer 11 per cent for output at current prices. For the latter, however, inter-country differences are much larger and for Belgium, the Federal Republic of Germany and the United Kingdom the contribution is around one fifth. Nevertheless, these data do not reveal any major shift in the pace of structural change after 1973 and even where there has been some it is difficult to rule out the presence of cyclical effects (as in the case of capital goods, noted above).[191] The conclusion is thus that changes in the structure of manufacturing output and employment that have occurred since 1973 are essentially the continuation of underlying trends that were already established before the oil price explosion and the recession of 1974-1975.

(ii) Absolute changes in employment

It has been shown that changes in the structure of employment have tended to be smaller than those for output. However, the employment changes have also shown much less tendency to reverse themselves so that in absolute terms some of the changes in branch employment have been considerable. These are shown for nine countries taken together in table 4.2.12; changes are fairly sensitive to the choice of end-years, so a selection of periods before and after 1973 is given.

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[191] Another approach to the question of whether there was a significant shift in the rate of structural change after 1973 is to fit the following equation to the time series of individual branch shares:

$$S_i = a_i + b_1 t + b_2 D + b_3 (t.D)$$

where S_i is the share of branch i in total employment or output, t is time (1968 ... 1978) and D is the dummy variable ($D = 0$ for 1968-1973 and $D = 1$ for 1973-1978). The first and second coefficients are interpreted as discussed previously while the third is used to indicate whether or not there was a significant change in the growth rate of S_i. However, where b_2 and b_3 were significant this was invariably the result of the large fluctuation in shares in 1974-1975: the significant b_3's thus appear to reflect a return to the longer term trend line of S_i rather than a shift in that trend. However the period after 1973 is still too short for drawing anything more than tentative conclusions in this respect.

TABLE 4.2.12

Employment changes in total manufacturing industry, by branch, 1968 to 1978

(*The nine countries together*)

Branch	*Total employment*		*Absolute change (thousands)*					*Percentage change*	
	1968	*1978*	*1968-1970*	*1970-1973*	*1973-1978*	*1968-1978*	*1970-1978*	*1968-1978*	*1970-1978*
Food, drink	3 281	3 103	−6	−38	−134	−178	−172	−5.4	−5.3
Tobacco	138	108	−4	−11	−15	−30	−26	−22.0	−19.5
Textiles	2 642	1 906	−12	−321	−403	−736	−725	−27.9	−27.6
Clothing and footwear	2 542	2 070	−12	−71	−390	−473	−461	−18.6	−18.2
Leather	290	219	−6	−28	−65	−71	−65	−24.4	−22.9
Wood	1 903	1 839	+31	+20	−115	−64	−95	−3.3	−4.9
Paper	874	807	+58	−30	−95	−67	−125	−7.7	−13.3
Printing	1 228	1 213	+42	−7	−50	−15	−57	−2.3	−4.5
Chemicals	2 379	2 556	+193	+59	−75	+177	−16	+7.4	−0.6
Petroleum and coal products	170	146	—	+6	−29	−23	−23	−13.8	−13.7
Rubber	481	488	+25	+9	−28	+6	−19	+1.3	−3.7
Non-metallic minerals	1 593	1 448	+36	−31	−150	−145	−181	−9.1	−11.1
Basic metals	2 323	2 093	+84	−100	−214	−230	−314	−9.9	−13.0
Metal products	2 738	2 873	+195	+26	−86	+135	−60	+4.9	−2.1
Non-electrical machinery	3 568	3 601	+251	−82	−136	+33	−214	+0.9	−5.7
Electrical machinery	2 672	2 967	+361	+134	−200	+295	−66	+11.0	−2.2
Transport equipment	2 972	3 359	+302	+113	−29	+386	+84	+13.0	+2.6
Manufacturing n.e.s.	434	453	+25	+6	−12	+19	−5	+4.4	−1.2
TOTAL	32 229	31 248	+1 562	−346	−2 198	−981	−2 543	−3.0	−7.5

Total manufacturing employment fell between 1970 and 1978 by just over 2.5 million (or 7.5 per cent), but by one million (or 3 per cent) between 1968 and 1978. The difference between these two figures reflects the sharp rise in employment between 1968 and 1970. Following the recession of 1974-1975, employment in 1978 was below the 1973 level in all branches, whereas between 1970 and 1973 the declines were centred on textiles, clothing and footwear, and basic metals.

Over the whole period 1970-1978 the only branch where employment increased is "transport equipment", and even there the rise is quite small: 84,000 (2.6 per cent). Compared with 1968, however, employment in 1978 was higher in seven branches (a total increase of 1.05 million) but this was more than offset by falls totalling 2.03 million in the remaining eleven.

The decline in employment between 1970 and 1978 is highly concentrated in just a few branches: textiles, clothing and footwear alone account for 48 per cent of the gross decline in employment, while basic metals provide a further 12 per cent, non-electrical machinery 8 per cent, and food and non-metallic metals another 7 per cent each; that is, 80 per cent of the gross fall is in six branches. The falls in employment in textiles and clothing have dominated the declines in other branches throughout the 1970s, but their proportionate contribution to the total gross decline has fallen as the effects of the recession and slower growth spread to other manufacturing branches: these two branches account for 60 per cent of the gross fall in employment in 1968-1970, 55 per cent in 1970-1973 and 36 per cent in 1973-1978.

The decline of employment in textiles and clothing in relation to the net change in manufacturing employment is shown for individual countries in table 4.2.13 (note that Austria and Switzerland are given in this table but are not included in table 4.2.12). Between 1968 and 1970 the decline in textiles, clothing and footwear employment was easily offset by expanding employment in other manufacturing branches (as had been the case throughout the 1960s) but this situation had already begun to change in some countries before 1973: in the Federal Republic of Germany, Sweden, Switzerland and the United Kingdom the fall in total employment was larger than for textiles, clothing and footwear alone. For 1973-1978 this was the rule, the main exceptions being Italy and Norway and, to a much lesser extent, Sweden. Thus for the period 1970-1978 as a whole, and with the exceptions of Austria, Finland, Italy and Norway, the fall in employment in textiles, clothing and footwear accounts for a major proportion of the total net decline in manufacturing employment: 36 to 52 per cent in the United Kingdom, Sweden, the Federal Republic of Germany and Belgium; and 100 per cent or more in France, the Netherlands and Sweden. This contribution is somewhat disproportionate in relation to the share of textiles, clothing and footwear in total employment, which in 1970 averaged just under 15 per cent (cf. table 4.A.3).

(iii) Changes in the relative specialization of individual countries

Although there has been a broad similarity in the patterns of structural change among the individual west European countries, there has nevertheless been plenty of scope for differences in the pattern of development. Appendix tables 4.A.4 and 4.A.5 show the ratios of the share of each branch in total national manufacturing output and employment to the unweighted average

TABLE 4.2.13

Changes in total manufacturing employment and in textiles, clothing and footwear, by country, 1968-1978

(*Thousand persons*)

Country	*Total employment*		*Absolute change*				
	1968	*1978*	*1968-1970*	*1970-1973*	*1973-1978*	*1968-1978*	*1970-1978*
A. *Textiles, clothing and footwear*							
Austria	156 [a]	131	+6 [b]	+1	−32	−25	−31
Belgium	217	135	−3	−8	−70	−80	−78
Finland	68	65	—	—	−12	−3	−12
France	890	656	−18	−7	−209	−234	−216
Germany, Federal Republic of	1 198	767	−14	−152	−265	−431	−417
Italy	1 435	1 355	+41	−85	−35	−80	−120
Netherlands [c]	168	71	−15	−36	−46	−97	−82
Norway	37	24	—	−6	−5	−13	−11
Sweden	102	50	−10	−20	−22	−52	−42
Switzerland [d]	159	98	−9	−19	−34	−62	−53
United Kingdom	1 071	850	−11	−79	−130	−221	−209
TOTAL	5 501	4 202	−33	−411	−860	−1 299	−1 271
B. *Total manufacturing employment*							
Austria	911	967	+29	+64	−36	+57	+28
Belgium	1 090	969	+49	+6	−175	−121	−169
Finland	463	526	+38	+48	−22	+63	+26
France	5 700	5 774	+227	+318	−471	+73	−153
Germany, Federal Republic of	9 488	8 868	+629	−216	−1 033	−620	−1 249
Italy	5 088	5 575	+355	+28	+104	+487	+132
Netherlands [c]	1 205	988	+13	−84	−146	−217	−230
Norway [c]	369	384	+11	+5	−1	+15	+4
Sweden	1 002	962	+34	−32	−42	−41	−74
Switzerland	1 146	964	+17	−36	−164	−182	−200
United Kingdom	7 826	7 206	+207	−417	−411	−621	−828

[a] 1969. [b] 1969-1970. [c] Man-years. [d] Including repairs.

branch shares for nine countries. Following the Secretariat's previous study[192] these ratios are divided into three groups: a country is said to be specialized in a given branch if the ratio is 125 or more; if the branch ratio is below 75 it is said to be "under-represented" in the national structure. These ratios indicate the extent to which the different west European countries are more or less specialized in certain branches: they do not necessarily indicate degrees of international competitiveness, for which a much larger sample of countries would be required.

A summary of the branches in which the nine countries were specialized (in respect of output) in 1978[193] is given in the following table:

Country	*Specialization* [a]	*Under-representation* [b]
Belgium	Tobacco, textiles, non-metallic minerals, basic metals, manufacturing n.e.s.	Leather, paper, printing, petroleum, rubber
Finland	Clothing, wood, paper, printing, petroleum	Tobacco, chemicals, rubber, metal products, transport equipment, manufacturing n.e.s.
France	Petroleum, rubber, non-electrical machinery, manufacturing n.e.s.	Tobacco, wood, paper, printing
Germany, Fed. Rep. of	Electrical machinery, transport equipment	Food, tobacco, wood, paper, printing, petroleum, manufacturing n.e.s.
Italy	Textiles, clothing, leather, rubber, non-metallic minerals, manufacturing n.e.s.	Tobacco, paper, printing, non-electrical machinery
Netherlands	Food, tobacco, printing, chemicals, petroleum, electrical machinery, manufacturing n.e.s.	Textiles, clothing, leather, wood, paper, rubber, basic metals, non-electrical machinery, transport

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[192] Economic Commission for Europe, *Structure and Change*, p. 37.

[193] The grouping of branches would not be very different if based on the 1970 ratios.

Country	*Specialization* [a]	*Under-representation* [b]
Norway	Wood, printing, petroleum, basic metals	Tobacco, textiles, clothing, leather, chemicals, rubber, non-electrical machinery, electrical machinery, manufacturing n.e.s.
Sweden	Wood, paper, printing	Food, tobacco, textiles, clothing, leather, chemicals, petroleum, manufacturing n.e.s.
United Kingdom	Printing, rubber, metal products	Wood, paper, petroleum, basic metals

Source: Table 4.A.4. The allocation of tobacco products is based on the relative employment shares in table 4.A.5.

[a] Specialization coefficient in 1978 of 125 or more.

[b] Specialization coefficient in 1978 of 75 or less.

("Tobacco products" have been classified on the basis of the employment ratios since there is some doubt, because of the different treatment of taxes, as to the international comparability of the value-added figures for this branch.)

A comparison of the relative specializations among the nine countries shows that the three Nordic countries still have an above-average share in output for wood and furniture, paper (particularly high in Finland) and printing. However, while the specialization in wood and furniture has fallen steadily in Finland from 1970 to 1978, there has been an equally steady increase in Norway. In Norway a relatively low specialization in paper disappeared (indeed 1970 was the only year when the specialization coefficient was just above 125), but in Sweden the reverse movement can be observed: the specialization coefficient for paper rose markedly from 158 to 180. This basic pattern is supplemented by an increasing specialization in clothing (Finland), petroleum and coal products (Finland, Norway), and basic metals (Norway).

Belgium and Italy are the only countries where all the branch specializations are in relatively low-skilled, labour-intensive industries. But while the Belgian specialization in textiles has tended to decrease somewhat, in Italy the coefficients for textiles, clothing and leather, though already the highest among all countries in 1970, have been increasing still further.[194]

The Netherlands show the highest specialization coefficients among all countries for the food and chemicals industries; indeed, for the latter branch this is the only country where the specialization coefficient is above 125. The other Dutch specializations are printing, petroleum and coal products, electrical machinery and, with a conspicuous rise since 1970, in "other", a heterogeneous branch including activities such as the manufacture of jewellery, musical instruments, sporting and athletic goods, as well as all activities not classified elsewhere.

Sweden, Norway and the Netherlands are the only countries where the shares of textiles and clothing are below 75 per cent of the nine-country average. The share of textiles in national output in these three countries is between 2.5 and 2.7 per cent (compared with an average of over 4 per cent) while clothing is between 1.3 and 1.7 per cent (the nine-country average being 3 per cent). Except for textiles in Sweden, the relative contraction of output in these branches has also been faster than in the rest of western Europe.

In the Federal Republic of Germany the specialization coefficient for electrical machinery was relatively high over the whole period, but for transport equipment the specialization ratio was around 115 until 1977. The relative specialization in non-electrical machinery disappeared as from 1974, when the coefficient fell well below 125.

The most striking feature for France is the sharp rise in the specialization coefficients for non-electrical machinery (from 119 to 142) and electrical machinery (from 81 to 112). The share of clothing and leather in real output, on the other hand, has fallen more slowly than the average for the nine countries, implying an increasing specialization coefficient for these two branches.

The United Kingdom maintained its specialization in metal products and rubber, and gained an additional one in printing. The specialization in transport equipment, shown for 1970, was lost as from 1975, when the coefficient fell from 127 to 116. There has also been a remarkable rise in the specialization ratio for "clothing and footwear": the United Kingdom is the only one among the nine countries where the share of this branch in total output rose between 1970 and 1978 (although only from 3.1 to 3.4 per cent).

(iv) Convergence and divergence of specialization patterns

It is clear from table 4.A.4 that the values of the specialization coefficients differ, sometimes markedly, between the countries. For example, for paper the coefficients range from (in 1970) 303 in Finland to 42 in the Federal Republic of Germany. These differences between the specialization coefficients are, of course, due to many factors including varying relative endowments of natural and human resources. However, the changes in the coefficients over time raise the question of whether or not there has been a convergence of national patterns of specialization in the 1970s. The following table shows the extent of inter-country differences in the specialization coefficients for the 18 branches, ranked according to the coefficient of variation in 1970:

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[194] This reinforcement of specialization in such traditional, labour-intensive sectors is also reflected in the structure of Italian exports which, in the 1970s and in contrast to the 1950s and 1960s. has tended to diverge from the pattern of structural change in other OECD countries. See F. Onida, "Italy's exports and industrial structure in the 1970s", *Review of Economic Conditions in Italy*, Banco di Roma, 1980, No. 1.

Relative dispersion of output specialization in nine countries
(Coefficients of variation) [a]

Branch	*1970*	*1978*
Paper	91.6	88.7
Tobacco products	80.5	51.8
Wood and furniture	46.5	47.1
Other manufacturing	42.8	50.7
Leather goods	42.1	66.5
Rubber products	38.1	39.2
Printing	37.3	42.4
Textiles	36.5	43.1
Clothing and footwear	35.9	51.2
Petroleum and coal products	33.9	44.5
Electrical machinery	33.1	29.9
Basic metals	32.2	32.2
Chemicals	28.0	30.7
Non-electrical machinery	27.9	27.2
Transport equipment	25.2	25.1
Non-metallic mineral products	18.7	21.2
Metal products	18.2	21.0
Food	18.1	20.4

[a] Standard deviation of specialization coefficients as percentage of nine-country mean (= 100).

In both periods the largest dispersion of coefficients was for paper, a branch in which the Nordic countries have particularly high coefficients; the least degree of inter-country variation is, not surprisingly, for food, followed closely by metal products and non-metallic minerals.

If the coefficients for 1970 and 1978 are compared it will be seen that the only significant declines have taken place in paper, tobacco, and electrical machinery. In contrast, inter-country differences have increased for leather products, textiles, and clothing, a reflection of the differing rates of decline of those industries. But for most of the remaining branches the dispersion of specialization coefficients has tended to increase only marginally.[195] Thus there has been no tendency for the branch patterns of output in the nine countries to converge in the 1970s.

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[195] The rank order of branches according to coefficients of variation in the two years is very stable: the Spearman rank correlation coefficient between the two is 0.92.

3. OUTPUT AND FOREIGN TRADE

In this section there is a discussion of trends in the relative developments of trade and output in each manufacturing branch in the 1970s. This analysis of trends in export performance and import penetration is preceded by a brief review of changes in the branch structure of foreign trade over the last decade or so.

The trade data, originally classified according the SITC, have been regrouped into the same 18 manufacturing branches (defined according to the ISIC) used in the previous section, thus establishing a direct link between the trade and output data. Since export and import price indices are available only for the Federal Republic of Germany and Sweden at the level of disaggregation required, the analysis is necessarily conducted in terms of current values only. This is somewhat unfortunate and a reminder is in order that the trends described below may perhaps be different from those (non-observable) based on data in real terms.

(i) Branch patterns of trade: an over-all west European view

The value of total manufacturing exports of the west European countries combined [196] increased at an annual rate of 19 per cent between 1970 and 1978. However, the expansion of trade over these years can be separated into two quite distinct periods: from 1970 to 1973 total exports rose at an annual rate of 23 per cent, and at the markedly lower rate of 16.4 per cent between 1973 and 1978. This deceleration occurred also for trade measured in volume terms. For the member countries of the European community and of EFTA together it is estimated [197] that exports of manufactured goods rose at an annual rate of 4.7 per cent from 1973 to 1978 against 10.2 per cent for 1970 to 1973.

Over the whole period the highest branch growth rate of exports (in value terms) was for petroleum and coal products, mainly because of rapidly increasing prices. There were six branches where export growth was below the average rate for total manufacturing: textiles (but *not* clothing), leather, paper, printing, basic metals and non-electrical machinery. However, the branch growth hierarchy changed considerably between 1970-1973 and 1973-1978. Branches, which on average had the highest growth rates in the first period (wood, tobacco, foodstuffs) fell back relatively, while branches such as electrical machinery, metal products, printing and manufacturing n.e.s. moved up the scale.[198]

The branch growth rates of manufacturing *imports* in the ten countries combined in general followed closely those of exports, a reflection not only of the high degree of intra-regional trade but also of the growth of intra-industry trade.[199] A comparison of the branch export and import growth rates for 1970-1978, however, reveals some interesting differences, particularly for clothing, foodstuffs and basic metals. Whereas imports of clothing rose much faster than exports, the reverse holds for foodstuffs and basic metals. These diverging rates partly reflect specific country developments, as for foodstuffs, where exports rose much faster than imports in the Federal Republic of Germany and the United Kingdom; or they indicate the shifting importance of trade with countries outside the region covered here, as is the case for clothing, a branch where the so-called newly industrializing countries have been able to make large inroads into the European market during the 1970s. A further specific case is basic metals, where the relatively slow import growth rate probably reflects not only a slackening of domestic demand, but also the effect of protectionist measures. However, it is noticeable that in all these branches the differences between the growth rates of exports and imports have narrowed after 1973.

(ii) Time trends in individual branch shares of total manufacturing exports and imports

For the ten countries combined the changes in the branch composition of exports have been much lower than for imports. This can be seen from table 4.3.1 which lists the significant regression coefficients of the estimated linear time trend equations for the individual branch shares in total trade.

The trends in branch shares have been estimated for two periods: the first, 1970-1978, covers the 1970s only, whereas the second, 1965-1978, extends over a somewhat longer time span thus allowing a clearer distinction between trends and short-term cyclical swings in branch shares. These swings in branch shares, mainly observable for the years around 1974 and 1975 may sometimes lead for the shorter period (1970-1978) to a non-significant trend coefficient on time in contrast to the longer period.[200]

Thus, for the 1970s there are only four branches for which the linear time trends indicate a significantly changing share in total exports as opposed to eight for 1965-1978. For the 1970s the trend was clearly downward

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[196] The standard nine countries of the previous section plus Switzerland. (Austria had to be excluded for technical reasons.)

[197] United Nations, *Monthly Bulletin of Statistics*, New York, December 1980 and December 1977.

[198] The Spearman rank correlation coefficient between the rankings of branch growth rates in the two periods is only 0.11.

[199] The Spearman rank correlation coefficient between branch export and import growth rates is 0.65 for 1970-1973; 0.83 for 1973-1978; and 0.58 for 1970-1978.

[200] This can be seen for example, from table 4.3.1 for the branch share of paper in total exports. The equation indicates no significant change in the branch share over the period 1970-1978, but for the period 1965-1978 the coefficient on time is negative.

TABLE 4.3.1

The ten countries combined: linear time trends in individual branch shares in total manufacturing exports and imports, 1970-1978 and 1965-1978: significant regression coefficients [a]

	1970-1978		*1965-1978*	
	Exports	*Imports*	*Exports*	*Imports*
Food, drink		−0.216	0.099	−0.248
Tobacco			0.001	0.001
Textiles	−0.269	−0.107	−0.109	−0.182
Clothing		0.156	0.047	0.167
Leather				
Wood	0.041			
Paper			−0.149	−0.080
Printing				
Chemicals		0.198		0.177
Petroleum products	0.165	0.309		0.282
Rubber		0.015	0.011	0.011
Non-metallic minerals			0.015	−0.014
Basic metals		−0.566		−0.530
Metal products		0.063		0.074
Non-electrical machinery		−0.252		
Electrical machinery	0.383	0.107	0.113	0.200
Transport equipment				0.238
Manufacturing n.e.s.				

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

for textiles, while wood and furniture, petroleum products, and electrical machinery were on a rising trend. These significant trends are preserved in only two cases (textiles and electrical machinery) when the equations are estimated for the whole period from 1965 to 1968. Wood and petroleum products no longer show a significantly changing share. This contrasts with the significant positive trends in this longer perspective for foodstuffs, tobacco, clothing, rubber and non-metallic minerals, though the changes are on average rather small for all branches.

Changes have been much more pronounced in the branch pattern of imports, reflecting the shifting importance of trade with countries outside the region covered here. There are altogether ten branches for which the estimated trend equations indicate significantly changing shares over the 1970s. Foodstuffs, textiles, non-electrical machinery and, notably basic metals were on a clear downward trend, while there were offsetting, rising shares for clothing and footwear, chemicals, petroleum products, and electrical machinery.[201]

As in the case of exports, the picture above differs somewhat if the regression analysis is extended to the annual data for the period 1965-1978. There is, notably, no longer a declining trend for non-electrical machinery, while for transport equipment there is a rising trend. The other changes are minor with rather small significant coefficients for tobacco (positive) and paper and non-metallic minerals (negative). A general feature of the changes in the structure of imports is that the movements of the branch share of unskilled, labour-intensive industries (textiles, clothing, leather) are either relatively small or tend to offset one another. The major changes in the west European structure are (at this aggregate level) due more to the advanced, capital-intensive—and skill—industries, where western Europe is generally considered to possess relative comparative advantages. (This point is taken up further below.)

The over-all degree of change in the structure of trade, as indicated by the size of the significant regression coefficients, has been much greater for imports than for exports. If the same measure is adopted as in the previous section [202] then the index of structural change for the 1970s is 2.82 for exports against 9.95 for imports. For the period 1965-1978 the corresponding values are 2.72 and 11.02. Thus, while the pace of structural change is somewhat higher for imports if this larger view is taken, it has slightly decelerated on the export side.

Clearly, at this level of aggregation, branch movements in the individual countries may be offsetting one another. It is therefore interesting to examine to what extent the individual changes in the ten countries are similar and to what extent they diverge.

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[201] The trend coefficient on time is not significant for transport equipment, though its share can be seen to have increased by about 3 percentage points, if 1970 and 1978 are compared (see table 4.A.6). This reflects the large cyclical swings for the shares of this branch in 1973-1975: it dropped from 11.6 per cent in 1973 to 9.6 per cent in 1974, a fall which was reversed in 1975. There were also large deviations of the observed values from the hypothetical trend line in 1977 (13.5 per cent) and 1978 (13.7 per cent). However, it can be seen that the coefficient on time is positive and significant when the additional observations for 1965-1969 are taken into account.

[202] This measure of the degree of structural change was half the absolute sum of the significant regression coefficients multiplied by 10 (equivalent to the total change over the 10-year period). See table 4.2.10.

(iii) The experience of individual countries

Tables 4.3.2-4.3.5 contain the regression coefficients of the estimated linear time trend equations for the 18 branches of manufacturing industry within each of the ten countries. As in the similar tables 4.2.7-4.2.9 for output and employment, regression coefficients which are not significantly different from zero have been omitted.

A summary measure of the degree of change in the structure of exports and imports in the ten countries is shown in table 4.3.6. The striking feature of this table is the considerable rate of change in the structure of exports in Belgium, Finland and Norway. While the index for the other seven countries is always well below 10 points, the ten-year rates of change for these three countries range from 16 points (Belgium) to over 18 points (Norway) and even 22 points in Finland for the period 1970-1978. The pace of change has been particularly slow in Sweden and the Federal Republic of Germany, where the change is around 4 points, whereas for the remaining 5 countries it varies between 6 (France) to 9 points (Switzerland).

The over-all pace of change in the structure of exports is in general not altered very much if the regression coefficient is estimated for the period 1965-1978.[203] It is higher, in this medium-term perspective, for France, the Netherlands, Norway and Sweden. In this latter country the pace of change more than doubles compared to that for 1970-1978. The only countries for which the longer-term rate of change is actually below the rate for the 1970s are the Federal Republic of Germany, Italy and Switzerland, while the index values remain virtually unchanged for Belgium and Finland.

The remarkable change in the structure of *exports* in Belgium, Finland and Norway contrasts with the much lower change that can be found for the branch composition of *imports* while the reverse is the case for the United Kingdom, the Federal Republic of Germany, Italy and France. In seven out of ten countries the degree of change in the 1970s was higher for imports than for exports, with the exceptions of Belgium, Finland and Norway. This pattern is partly reversed for the longer period 1965-1978, with only four countries recording a higher degree of change for imports (compared with exports), namely France, the Federal Republic of Germany, Italy and the United Kingdom. Indeed, in the latter three countries the pace of change on the import side exceeds that for exports by about two (Italy, United Kingdom) to four times (Federal Republic of Germany).

It was observed in the previous section [204] that the overall degree of structural change for output and employment was to a large extent in each country dominated by just a few branches. An inspection of the significant regression coefficient in tables 4.3.2-4.3.5 suggests that this is also true for the trade structures. This applies especially to countries which showed a particularly high degree of change in the composition of exports or imports. Thus, for example, in Belgium about 40 per cent of the change in the structure of exports between 1970 and 1978 is accounted for by only one branch, basic metals. And if three more branches are added (textiles, chemicals, petroleum products) this figure rises to about 80 per cent. Similarly, in Finland wood and paper make up for roughly 47 per cent of the total change, a figure which rises to 75 per cent if non-electrical machinery and transport equipment are added. In Norway about 91 per cent of the changing export structure is attributable to only four branches: wood, petroleum products, basic metals and transport equipment.

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[203] Though, of course, the extent to which individual branches are contributing to this change differs between the two periods, as can be seen from a comparison of the significant regression coefficients in tables 4.3.2-4.3.5.

[204] See pages 204-205.

TABLE 4.3.2

Linear time trends in individual branch shares in total manufacturing exports, 1970-1978: significant regression coefficients [a]

	Belgium	*Finland*	*France*	*Germany, Fed. Rep. of*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*Switzerland*	*United Kingdom*
Food, drink	0.203	−0.167		0.231					−0.320	0.119
Tobacco		−0.001	0.002	0.001			−0.003		−0.011	
Textiles	−0.347		−0.403	−0.174	−0.446	−0.395	−0.081	−0.051	−0.259	−0.213
Clothing, footwear		0.129	−0.086			−0.064	−0.040		−0.048	
Leather	−0.029	0.007	−0.053		0.055	−0.029	−0.019			
Wood, furniture		−0.636		0.063	0.182	0.026			0.067	0.075
Paper	−0.059	−1.444				−0.050	−0.488			
Printing	0.009	0.038	−0.023			−0.026		0.013	−0.035	
Chemicals	0.563	0.198	0.265			0.412		0.233		0.354
Petroleum products	0.428	0.297	0.139			0.456	0.331	0.133		
Rubber products	0.049			0.022		−0.019	−0.015	−0.014		
Non-metallic minerals	−0.132				0.091				0.028	
Basic metals	−1.244						−1.049			−0.391
Metal products	0.103	0.152	0.081		0.167	0.080		0.070	−0.312	
Non-electrical machinery		0.573		−0.238	−0.323		0.160			
Electrical machinery	0.096	0.118	0.149	0.115	−0.124			0.204	0.289	0.153
Transport equipment		0.681					1.499		0.199	
Manufacturing n.e.s.		0.021			0.124	−0.032			0.198	

[a] Significant at 1 and 5 per cent on the basis of a two-tailed t-test.

TABLE 4.3.3

Linear time trends in individual branch shares in total manufacturing imports, 1970-1978: significant regression coefficients [a]

	Belgium	*Finland*	*France*	*Germany, Fed. Rep. of*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*Switzerland*	*United Kingdom*
Food, drink	0.155			−0.308		0.165		−0.153	−0.180	−1.007
Tobacco		−0.003	0.005	0.005				−0.005		
Textiles	−0.180		0.104	−0.214		−0.320	−0.282	−0.286	−0.118	
Clothing, footwear	0.176	0.067	0.155	0.240	0.032	0.193	0.140		0.131	0.101
Leather					0.051				−0.025	
Wood, furniture	0.162					0.122	0.113	0.093		−0.242
Paper		0.040								
Printing			−0.034	0.009	−0.012	0.021	0.040			−0.019
Chemicals	0.292		0.235	0.257	0.215					
Petroleum products			0.112	0.518	0.454	0.383			0.514	
Rubber products			0.044			−0.013			−0.018	0.039
Non-metallic minerals		0.025			−0.035					
Basic metals	−0.638	−0.568	−0.544	−0.737	−0.731	−0.409	−0.463	−0.534	−0.387	−0.424
Metal products		0.200		0.119		−0.085	0.309			0.169
Non-electrical machinery	−0.317		−0.553	−0.236	−0.457	−0.185			−0.432	
Electrical machinery		0.243	0.171	0.184	0.151		0.194			
Transport equipment			0.207							1.009
Manufacturing n.e.s.			0.047						0.210	0.043

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

TABLE 4.3.4

Linear time trends in individual branch shares in total manufacturing exports, 1965-1978: significant regression coefficients [a]

	Belgium	*Finland*	*France*	*Germany, Fed. Rep. of*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*Switzerland*	*United Kingdom*
Food, drink	0.215	−0.085		0.195		−0.213	−0.447	−0.079	−0.175	0.118
Tobacco			0.004	0.001		−0.100	−0.005	0.004	−0.007	
Textiles	−0.450		−0.409		−0.406	−0.387	−0.042		−0.214	−0.204
Clothing, footwear		0.335			0.113	−0.034	−0.022		−0.067	0.025
Leather	−0.023	0.008	−0.068	−0.017	0.034	−0.026	−0.013	−0.012	0.036	−0.011
Wood, furniture	0.059	−0.538		0.049	0.105				0.044	0.046
Paper		−1.668		0.039	0.015	−0.053	−0.638	−0.488		
Printing		0.037	−0.039		−0.017	−0.031		0.010		
Chemicals	0.609	0.205				0.406	−0.131	0.132	0.167	0.316
Petroleum products	0.223	0.153				0.654	0.350	0.074		0.121
Rubber products	0.035		0.012	0.017		−0.017	−0.015	−0.013	−0.003	
Non-metallic minerals	−0.169	0.026	−0.012	−0.023	0.106			0.010		
Basic metals	−0.995	0.150	−0.287			−0.101	−0.703	−0.226	0.142	−0.255
Metal products	0.052	0.171	0.102	−0.069	0.073	0.138	0.103	0.082	−0.431	0.070
Non-electrical machinery	0.097	0.391	0.135	−0.127			0.168			
Electrical machinery	0.124	0.200	0.155	0.120		−0.265	0.164	0.271	0.207	0.088
Transport equipment	0.212	0.474	0.455				1.198	0.366	0.088	−0.308
Manufacturing n.e.s.		0.047		−0.046					0.101	0.014

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

TABLE 4.3.5

Linear time trends in individual branch shares in total manufacturing imports, 1965-1978: significant regression coefficient [a]

	Belgium	*Finland*	*France*	*Germany, Fed. Rep. of*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*Switzerland*	*United Kingdom*
Food, drink			−0.271	−0.398		0.133		−0.134	−0.230	−1.112
Tobacco			0.002	0.004			−0.002	−0.006	0.002	0.004
Textiles	−0.151		0.099	−0.249		−0.336	−0.229	−0.264	−0.123	
Clothing, footwear	0.146	0.071	0.108	0.240	0.033	0.155	0.123	0.090	0.123	0.119
Leather	−0.026				0.029	−0.012		−0.020	−0.054	−0.012
Wood, furniture	0.064	0.012			−0.057	0.052	0.122	0.047		−0.212
Paper	−0.031	0.031		−0.103	−0.149	−0.026	0.079	0.018		−0.112
Printing			−0.024		−0.013	0.015	0.033			
Chemicals	0.246		0.185	0.223	0.162	0.200			0.139	0.216
Petroleum products	0.142			0.378	0.226	0.162			0.263	
Rubber products		−0.010	0.046		0.012			0.014	−0.012	0.030
Non-metallic minerals	−0.040	0.020			−0.051	−0.035		−0.020		0.021
Basic metals	−0.538	−0.353	−0.403	−0.668	−0.441	−0.224	−0.223	−0.256	−0.255	−0.379
Metal products		0.123	0.031	0.125			0.216	0.058	0.071	0.174
Non-electrical machinery	−0.190		−0.287			−0.118	0.195		−0.170	0.233
Electrical machinery	0.083	0.267	0.152	0.268	0.136		0.166	0.120	0.077	0.305
Transport equipment	0.300		0.317	0.255	0.372		−0.354			0.798
Manufacturing n.e.s.	−0.016						0.025		0.090	0.027

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

TABLE 4.3.6

The degree of structural change: 1970 to 1978 and 1965 to 1978 [a]

(*Ten-year rate of change*)

	Exports		*Imports*	
	1970-1978	*1965-1978*	*1970-1978*	*1965-1978*
Belgium	16.31	16.32	9.40	9.87
Finland	22.31	22.44	5.73	4.44
France	6.01	8.39	11.06	9.63
Federal Republic of Germany	4.22	3.52	14.14	14.56
Italy	7.56	4.35	10.69	8.41
Netherlands	7.95	11.68	9.48	7.34
Norway	18.43	20.00	7.71	8.84
Sweden	3.59	8.84	5.36	5.24
Switzerland	8.83	8.41	10.08	8.05
United Kingdom	6.53	7.88	15.27	18.77
Ten countries combined	2.82	2.72	9.95	11.02

[a] The degree of structural change is half the absolute sum of the significant regression coefficient (in tables 4.3.2-4.3.5) multiplied by 10.

Textiles, chemicals and electrical machinery contributed most of the over-all structural change in France, while in the Federal Republic of Germany and Italy the major changes in branch export shares were for textiles and non-electrical machinery, complemented by foodstuffs (Federal Republic of Germany) and metal products (Italy). In the Netherlands this core of branches is composed of textiles, chemicals and petroleum products, and in Sweden chemicals and electrical machinery. In Switzerland most of the change in the export structure was due to food, textiles, metal products and electrical machinery and in the United Kingdom to textiles, chemicals, basic metals and electrical machinery.

This pattern is generally repeated on the import side. Food, textiles, clothing, chemicals, petroleum products, basic metals, non-electrical machinery and electrical machinery are—to varying degrees—mainly "responsible" for the over-all degree of change. To this group have to be added transport equipment in the United Kingdom and metal products in Norway.

In a more general way the basic patterns of change in west European export and import structures suggest a relatively high degree of similarity. The basic feature on the exports side is the widespread advance of the high-skilled capital-intensive industries, electrical machinery, metal products, petroleum products, chemicals and transport equipment (though for the latter branch only if the trends for 1965-1978 are regarded) as opposed to the general stagnation or relative decline of low-skilled, labour-intensive industries such as rubber, tobacco, leather, clothing and textiles. For the latter branch as well as for basic metals and paper, there was no rising trend share in any of the ten countries in the 1970s, while Finland is the only country where clothing and footwear was on a rising trend. The surprising feature is perhaps the widespread relative stagnation of the share of non-electrical machinery particularly in 1970-1978: this probably reflects the general slowdown of investment activity over the last decade.

The two extreme cases on the *import* side are clothing and footwear, which was on a rising trend in nine out of ten countries in the 1970s (and in all ten countries since the mid-sixties) and basic metals, where the trend is clearly downwards in all countries. Apart from the opposing movements recorded for clothing and footwear, there is a generally high degree of similarity in the direction of changes in branch shares of both exports *and* imports. Thus, across western Europe the advance of electrical machinery, chemicals, metal products etc. and the relative decline of low-skill, labour-intensive industries (such as, textiles, leather) is not at all restricted to exports only. However, recent public discussion of the implications of structural change has tended to focus on those branches where developing countries, or, rather, the so-called "newly industrializing countries" have an increasing comparative advantage, namely, textiles and especially clothing. This narrow focus, however, deflects attention from the fact that structural change is, and has been, more important in those branches where western Europe can be expected to maintain and increase its comparative advantage. Most of the trade of the highly industrialized countries is among themselves, and the pattern of relative factor endowments in these countries is roughly similar. From this it follows that the degree and direction of structural change in individual industrialized countries, is much more a question of which branches can maintain or improve their competitiveness relative to the same branches in other highly developed countries.[205] The similarity in trends of branch shares of exports vis-à-vis imports is thus not surprising. It reflects both the increasing importance of intra-industry trade and the increased competition that "advanced" industries are facing in their respective domestic markets.

As was done for output and employment in the previous section the linear time trend equations for annual branch shares in exports and imports have also been estimated with the inclusion of a dummy to distinguish the period after 1973 from the years before. The underlying rationale for this was to test for the possibility of a once-for-all shift in the trend line of individual branches after the first oil crisis and the economic recession of 1974/75.

Out of 180 equations (18 branches and 10 countries) there were 48 significant dummies for output at current prices (17 significant coefficients in 162 equations).[206]

However, the inspection of the time trend equations also shows that in general a significant coefficient on the dummy is accompanied by a regression coefficient on time which has either the opposite sign of the dummy coefficient or is non-significant. This suggests that instead of detecting a once-for-all shift in the trend lines, the significant dummy coefficients are reflecting the sharp cyclical swings in the movements of certain branch shares in the recession of 1974/75 and its aftermath. This presumption is reinforced by the fact that the distribution of significant dummy coefficients across branches and countries differs considerably if the linear time trends are estimated not for 1970-1978 but, instead, for 1965-1978.

A prominent example is leather, for which there were seven (the largest number for all branches) significant dummys for exports and six for imports in the trend equations for the period 1970-1978. However, once the period is extended to cover all years from 1965 to 1978 there remain only three significant shifts for exports and none at all for imports. Out of fifty significant shifts in the trends of export shares in the period 1965-1978 only 24 were also significant in the shorter period 1970-1978. Roughly the same proportion can be found for shifts in the trends of import shares.

Thus, even where the dummy coefficient indicates a significant shift in the trend lines it is, at this stage, difficult or virtually impossible to determine whether this signifies simply a cyclical swing in the movements of branch shares or a fundamental change in the structure of exports or imports. The observations available after 1974/75 are just to few to allow a firm judgement.

(iv) Export and import shares of gross output

The changing pattern of foreign demand and supply is an important factor for the pace and direction of changes in the national structures of output and employment. It is therefore interesting to analyse the development of trade relative to total output growth in each manufacturing industry.

The measure of the relative importance of trade adopted here is the ratio of exports and imports, respectively, to each industry's gross output. These ratios have been compiled for the standard 18 branches of each country's manufacturing industry for the period 1970 to 1978 and are shown in appendix table 4.A.8-4.A.9.[207]

Before proceeding to the analysis of the data it is appropriate to point to some conceptual difficulties in the comparison of the trade and production figures.[208] These difficulties originate from the complex flow of intermediate products (inputs) between the establishments of an industry. These intra-industry sales, which reflect the degree of output specialization within individual branches, imply that gross output figures contain an element of double counting when they are aggregated to the broad industry groups shown in the national accounts. The effect of this is to underestimate the relative importance of trade for individual industries. A further complication arises from the fact that an increasing proportion of

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[205] See also OECD: *The impact of the newly industrializing countries on production and trends in manufactures*, Paris, 1979. "It should be emphasized that the painful adjustments problems AICs (advanced industrialized countries) have run into since 1973 owe far more to inflation, slow growth and disparities in competitive positions among them, than the competition from outside." (p. 14.)

[206] For exports the largest number of significant dummies for 1970-1978 were for the Netherlands (seven). There were six significant shifts for the Federal Republic of Germany and Norway and five for France and the United Kingdom. The remaining countries either had four or three significant coefficients. For imports, the largest number of significant shifts (eight) were for Sweden and the United Kingdom. The other six countries had between five and three significant shifts, with the exception of Finland (only one significant dummy).

[207] Austria, Belgium and Switzerland had to be excluded here owing to lack of comparable data for the 18 sectors used throughout this chapter.

[208] cf. J. D. Wells and J. C. Imber, "The home and export performance of United Kingdom industries", *Economic Trends*, No. 286, August 1977.

TABLE 4.3.7

Linear time trends in the ratios of exports to gross output (A) and imports to gross output (B): significant regression coefficients[a]

	Finland (1970-1978)		*France (1970-1978)*		*Germany, Fed. Rep. of (1968-1978)*		*Italy (1968-1978)*		*Netherlands (1969-1977)*		*Norway (1970-1978)*		*Sweden (1968-1978)*		*United Kingdom (1970-1978)*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
Food, drink			0.415	0.358	0.525	0.171	0.312	0.741	0.997	0.649			0.123	0.353	0.438	
Tobacco	−0.006	−0.171	0.146	0.229	0.076	0.243		0.052	0.841				0.862	−0.253	0.044	0.039
Textiles	1.203		0.538	2.022	1.476	1.908	1.155	1.132	3.628	4.355		0.898	1.697	2.633	0.811	1.712
Clothing, footwear	2.375	0.453		1.295	0.697	2.845		0.098	3.081	14.259		13.288	1.995	8.413	0.954	1.927
Leather	1.694	2.408		1.767	0.932	2.069	0.859	0.477		6.589		7.310	2.574	4.322	0.764	1.550
Wood, furniture			0.582	0.881	0.455	0.384	1.007		1.364	3.828		0.534		0.296	0.705	
Paper		0.073	0.543	0.566	0.857	0.658	0.437		1.016	1.926		1.033		0.063	0.347	
Printing	0.249	−0.109	0.120		0.267	0.162			−0.144	0.178		0.267	0.180	0.127	0.228	0.088
Chemicals	1.076		1.378	0.913	0.263	0.384			2.302			−0.625	1.209		0.972	0.714
Petroleum products	1.242	−2.452	0.297	0.167		1.498	−2.058	0.946	..	..		−5.033				
Rubber products			1.248	1.015	1.169	0.842	1.277	0.569	1.924	2.213	1.590	9.079	1.454	3.273	0.621	0.874
Non-metallic minerals			0.344	0.296	0.292	0.285	1.346		1.699	1.622	−0.292		0.812	0.793	0.598	0.405
Basic metals	1.404	−2.633	0.979		0.636	−0.331	1.450		1.450				1.216		0.265	
Metal products	1.619		1.448	0.999	0.433	0.578	0.829		3.188	1.210		3.247	0.970	0.759	0.666	0.782
Non-electrical machinery	2.811	−1.872	1.612		0.634				1.482		−2.971	−8.765	1.500	1.119	1.035	1.155
Electrical machinery	1.229		1.553	1.155	0.670	0.536	1.086	1.200	1.644	1.493		2.071	2.337	0.942	1.496	1.255
Transport equipment	4.113	−3.046	1.214	0.558		0.440	1.261	1.335	2.494		4.395		1.083		1.481	2.816
Manufacturing n.e.s.	1.691		0.448	0.888		1.050	2.601		−2.266	−3.431		1.144	1.330	3.022	1.222	2.348
Total manufacturing	0.776		0.836	0.542	0.604	0.412	0.737	0.397	2.372[b]	1.786[b]			1.066	0.753	0.754	0.855

[a] Significant at 1 and 5 per cent on the basis of a two-tailed *t*-test.

[b] Excluding petroleum and coal products.

international trade consists of intermediate products. This implies that the *exports* of a branch may include foreign value added (i.e. the intermediate foreign input required to produce the export product) and, similarly, that the foreign final products imported may contain domestically produced (exported) inputs; for example, car engines produced in the United Kingdom are exported to the Federal Republic of Germany and "repurchased" in the form of imported German cars.

Thus, whereas the existence of intra-industry sales within the domestic economy tends to bias downwards the relative importance of foreign trade, the reverse holds when intermediate products flow back and forth across national frontiers.[209] For these reasons the ratio shown in tables 4.A.8 and 4.A.9 should be viewed with caution.

(v) Trade shares for total manufacturing industry

Table 4.3.7 shows the significant regression coefficients of the linear time trend equations estimated for the export and import ratios in the 1970s. The main feature of this table is the increasing dependence of manufacturing industry upon international specialization. The general trend is for a rise in both the share of exports *and* of imports in gross output. For manufacturing industry as a whole the only deviations from this common pattern are Finland where the trend is upwards for the export ratio only, in contrast to a more or less stable import ratio, and Norway, where there is no significant trend in either the export or the import ratio. However, in Norway the stable export/gross output ratio appears to be largely influenced by a strongly rising export ratio for transport equipment: if this branch is excluded from total manufacturing then the trend of the ratio for the rest of industry is clearly downwards.[210]

In six out of the eight countries the trend was for a faster rise in the export ratio than in the import ratio. Only in the United Kingdom was the trend coefficient for imports higher than for exports.

Table 4.3.8 gives a summary of this process by opposing the export and import ratios for total manufacturing industry in 1970 and 1978. It also illustrates the familiar fact that the relative importance of trade tends to be inversely related to the size of country: this can be seen from the lower ratios for France, the Federal Republic of Germany, Italy and the United Kingdom. The positive net balance of all countries from total trade in manufacturing products is reflected in the fact that the export ratio is higher than the import ratio.[211]

The relative changes in the ratios differ markedly between 1970-1973 and 1973-1978, a fact that is not revealed by the time trend coefficients in table 4.3.7. The general feature is a deceleration of the rate of change, thus following the trends of production and demand abroad and at home (table 4.3.9). This deceleration was most pronounced for the United Kingdom, where the annual growth of the import ratio slowed to an average rate of about 2 per cent for the period 1973-1978 after a 12 per cent rate of growth (the highest rate for all countries) from 1970 to 1973. However, there are some noteworthy exceptions to the general pattern. In Finland and Italy the export ratio rose strongly after 1973, but these were also the only two countries with an actually declining ratio between 1970 and 1973. And for three countries (the Federal Republic of Germany, the Netherlands, Sweden) import penetration did accelerate somewhat after 1973, in contrast to the other countries. The growth rates of the export ratio between 1970 and 1978 was rather similar for all eight countries: they cluster around 3 to 4 per cent, whereas the changes on the import side are more dispersed.[212]

TABLE 4.3.8

The share of imports and exports in gross output of total manufacturing industry, 1970 and 1978

(*Percentages*)

Country	*Imports*		*Exports*	
	1970	*1978*	*1970*	*1978*
Finland	27.8	25.0	28.9	36.2
France	15.1	18.8	16.5	22.4
Germany, Federal Republic of	11.9	15.3	18.0	23.2
Italy	17.7	19.7	22.0	30.5
Netherlands [a]	42.2	47.5 [b]	37.9	47.1 [b]
Norway	42.5	40.1	30.1	31.4
Sweden	28.5	31.5	29.5	38.1
United Kingdom	13.1	20.0	15.3	20.8

[a] Excluding petroleum and coal products. [b] 1977.

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[209] See also: R. Blackhurst, N. Marian and J. Tumlir, "Trade liberalization, protectionism and interdependence", GATT, *Studies in International Trade*, 1977, pp. 15-18. It has been shown that for most industrial countries intra-industry trade in manufactures (measured at both the 3- and 4-digit levels of the SITC) was on a rising trend throughout the 1960s and early 1970s. Moreover a large and increasing proportion of this trade appears to be due to international trade in intermediate products. See P. B. W. Rayment, "Intra-industry specialization and the foreign trade of industrial countries" in S. F. Frowen (ed) *Controlling Industrial Economies: Essays in Honour of C. T. Saunders*, Oxford: 1981.

[210] The coefficient on time is −0.559.

[211] The exceptions here are Norway and the Netherlands. However, in the latter country the export ratio in 1977 is only below the import ratio because of the exclusion of petroleum products.

[212] It should be noted that the regression coefficients in table 4.3.7 are indicating percentage *point* changes per year. It can be seen that they were (for total manufacturing) highest for the Netherlands. However, given the already high *level* of the trade ratios attained in this country, these changes transform into growth rates of about the same magnitude as for the other countries.

TABLE 4.3.9

Rates of change in the shares of exports and imports in gross output, 1970-1973 and 1973-1978

(*Average annual growth rates*)

Country	*Imports* 1970-1973	*Imports* 1973-1978	*Imports* 1970-1978	*Exports* 1970-1973	*Exports* 1973-1978	*Exports* 1970-1978
Finland	−1.6	−1.2	−1.4	−1.5	5.6	2.9
France	4.2	1.9	2.8	4.3	3.7	3.9
Germany, Federal Republic of	2.5	3.6	3.2	4.6	2.4	3.2
Italy	2.0	0.9	1.3	−1.2	7.5	4.2
Netherlands [a]	−0.1	3.1 [b]	1.7 [c]	4.9	1.9 [b]	3.2 [c]
Norway [d]	1.2	−1.9	−0.7	4.8	−1.9	0.5
Sweden	0.5	1.7	1.3	6.0	1.7	3.2
United Kingdom	10.8	2.4	5.4	3.8	4.0	3.9

[a] Excluding petroleum and coal products.

[b] 1973-1977.

[c] 1970-1977.

[d] The changes in the import ratio excluding transport equipment are as follows: 1970-1973: −0.7; 1973-1978: +1.0; 1970-1978: +0.4.

(vi) Individual branch shares

The trends in the individual branch export and import ratios are generally in the same direction as for total manufacturing industry. Out of 143 regression equations (18 branches and eight countries, but excluding petroleum products in the Netherlands) for the exports ratios there are 103 where the trend is upwards, and only six where it is negative. For imports the number of equations with a rising trend is somewhat lower (90) and the number of import ratios for which the trend is downwards is a little bit higher (12).

It can be seen from table 4.3.7 that these downwards trends were mainly concentrated in Finland and Norway. There are seven negative time trends in Finland (of which six for imports) and five for Norway (of which three for imports). Of the remaining six negative coefficients three are in the Netherlands (two for export) and one each in the Federal Republic of Germany, Italy and Sweden.

The export performance of the Norwegian manufacturing industry has been particularily sluggish. Out of 18 branches there were only two for which the trend in the export ratios is upward (petroleum products and transport equipment); the ratios have declined for two branches (non-metallic minerals and non-electrical machinery) but have not changed significantly for the rest.

The branches with negative trends do not fall into any systematic pattern. The most contrasting development in the ratios is for basic metals. While the export ratio is on a rising trend in seven out of eight countries, there is no significant rise in the import ratio at all: indeed, it has fallen in Finland and the Federal Republic of Germany. It was already noted above that these opposing trends may be attributed to low domestic demand and protectionist measures. Other conspicuous deviations include chemicals, with a rising export ratio in 6 countries, but a rising import ratio in only three. Similarly for non-electrical machinery, the import ratio was on a rising trend in only two countries, as opposed to six for exports. This suggests a relatively strong competitive position of these two industries in their domestic markets and abroad.

The level and degree of change of the ratios differ markedly between branches,[213] reflecting among other things the varying patterns of domestic demand and relative competitiveness. The regression coefficients indicate particularly large increases in import penetration in textiles, clothing and leather. The largest rise (in percentage points) in import penetration was, in all countries, in one of these three branches.[214] The pace of import penetration in the clothing and footwear branch was particularly high in the Netherlands (14 points per year), Norway (13 points per year) and Sweden (about 8.5 points per year). It can be seen from table 4.3.10 that import penetration has reached very high levels in these countries. The value of total imports is now largely in excess of the value of domestic output, with an import ratio for clothing varying (in 1978) between about 158 in Norway and 120 in Sweden. Total import of *textiles* were roughly equal to domestic output in 1978 in the Netherlands and Sweden, but were well above in Norway. However, it should be noted that the share of these industries in total manufacturing output was much lower in these countries than elsewhere.

The vigorously rising import penetration in the above mentioned branches is by now a well established and widely publicized fact, a major example of the shifts in comparative advantage in the production of goods occuring in the world economy. It is therefore interesting to observe the also fairly strong upward trends in the *export* ratios for these branches. There has been no decline at all in these ratios in the 1970s. On the contrary, the increase in the export ratios of these branches are in general well above the average rise for total manufacturing. In fact, the trend coefficient for textiles was the highest of all the 18 branches in the Federal Republic of

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[213] A few of the ratios are particularly volatile, most notably in the case of transport equipment in Norway, the Netherlands and Finland. These erratic movements are probably largely due to transactions in ships.

[214] Except in the United Kingdom, where the largest coefficients on time were for transport equipment and manufacturing industries n.e.s., with clothing following next.

TABLE 4.3.10

The share of exports and imports in gross output of the textile and clothing industries

(Percentages)

	Imports/gross output				*Exports/gross output*			
	Textiles		*Clothing*		*Textiles*		*Clothing*	
Country	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Finland	55.5	70.7	9.5	11.8	22.9	36.9	27.8	51.5
France	14.5	29.2	6.3	15.3	22.6	26.7	13.6	17.4
Germany, Federal Republic of	27.0	44.0	13.4	37.3	23.1	34.2	5.8	12.3
Italy	14.0	20.7	1.9	2.5	35.1	49.2	25.6	35.3
Netherlands	74.4	97.1 [a]	51.3	142.9 [a]	63.2	82.1 [a]	28.3	44.5 [a]
Norway	107.4	117.1	59.3	158.4	21.7	24.0	8.1	9.1
Sweden	81.0	98.9	43.5	119.2	23.4	35.9	13.7	31.6
United Kingdom	12.7	27.9	9.7	24.6	17.5	23.3	9.2	15.2

[a] 1977.

Germany and the Netherlands. The same holds for leather in Sweden.

This continuing rise in the export ratio, to varying degrees offsetting the loss of market share in domestic markets, is partly due to trade among the west European countries themselves in relatively higher unit-value products. Another factor is the growth of "outward processing": this is one response to the growing competitiveness of developing countries whereby semi-finished textiles, clothing and footwear products are sent abroad (usually to developing countries) for further processing before re-importation by the country of origin. As noted above, the growth of this type of transaction will raise both the export and import ratios. It should also be noted that the import shares for textiles were already among the highest of all branches in 1970 in the Federal Republic of Germany, the Netherlands, Norway and Sweden, and that major changes in the *relative* position of this branch with regard to import penetration have only occurred in Finland and France (from rank 7 and 8 respectively to rank 1). This is somewhat different from the situation in the clothing industry where the import penetration was, in general, relatively low in 1970 and continued to be so in France, Italy, Finland and the United Kingdom.

In general the rank order of all branches with regard to the shares of imports and exports in gross output has changed very little between 1970 and 1978, an indication of the rather stable hierarchy of relative branch competitiveness in each country.[215]

There is a general tendency for branches with a relatively high degree of export competitiveness to be at the same time exposed to a relatively high degree of competition from abroad on the domestic market. This is most pronounced in France and the United Kingdom, though in the latter country a relatively strong relationship between the export and import rankings exists only in 1978, a consequence of marked changes in the relative positions of food, textiles, and transport equipment on the import side. The Spearman rank correlation coefficients, shown below, though significant for the Federal Republic of Germany, Italy and the Netherlands, are relatively low:

Spearman rank correlation coefficients between the branch share of exports and imports in gross output

	1970	*1978*
Finland	0.24	0.25
France	0.58*	0.75*
Germany, Federal Republic of	0.45**	0.43**
Italy	0.28	0.41*
Netherlands	0.46**	0.48**
Norway	0.51**	0.43**
Sweden	0.23	0.23
United Kingdom	0.17	0.56*

A correlation coefficient at 1 or 5 per cent is indicated by * or ** respectively.

The low and non-significant correlation coefficients for Finland and Sweden mainly reflect the strong export position of the natural resource-based industries (wood, paper), for which the share of imports in gross output is much lower than for the other branches.

It was noted above that there is a high degree of similarity in the direction of changes in the export and import ratios across the eight countries and that the variance of changes in the ratios is generally fairly high. The following table lists the branches for which the export and import ratios have increased by 10 percentage points or more between 1970 and 1978. Clearly, the more marked changes tend to be rather dispersed between branches and among countries:

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[215] The Spearman rank correlation coefficient between the 1970 and 1978 branch ranking of the shares of exports and of imports in gross output are very high and all cases significant at 1 per cent. The exception is the United Kingdom with a rather low coefficient for the import rankings, which, however, is still significant at 1 per cent.

Changes in import penetration and export performance[a]

(1970-1978)

(a) *Import penetration*

Finland	Textiles*; metal products*
France	Textiles; leather
Germany, Federal Republic of	Textiles; clothing; leather; petroleum products
Italy	—
Netherlands	Textiles; clothing; leather; wood; rubber; non-metallic minerals; transport*
Norway	Clothing; leather; rubber; metal products; electrical machinery; manufacturing n.e.s.
Sweden	Textiles; clothing; leather; rubber; manufacturing n.e.s.
United Kingdom	Textiles; clothing; leather; electrical machinery; transport; manufacturing n.e.s.

(b) *Export performance*

Finland	Textiles; clothing; basic metals; metal products; non-electrical machinery; electrical machinery; transport equipment; manufacturing n.e.s.
France	Chemicals; metal products; non-electrical machinery; electrical machinery
Germany, Federal Republic of	Textiles; rubber
Italy	Textiles; wood; non-metallic minerals; basic metals; metal products; transport equipment; manufacturing n.e.s.
Netherlands	Textiles; clothing; leather*; chemicals; rubber; non-metallic minerals; basic metals; metal products; electrical machinery; transport;
Norway	Rubber; basic metals*; transport equipment; manufacturing n.e.s.
Sweden	Textiles; leather; chemicals; rubber; basic metals; non-electrical machinery; electrical machinery
United Kingdom	Transport; manufacturing n.e.s.

[a] Only branches with a change in the ratios of 10 percentage points or more are listed. An asterisk indicates that the linear trend coefficients are not significantly different from zero.

On the import side, the marked changes which are common to all countries (with the exception of Italy) are for textiles, clothing and leather. But for the other branches the changes appear to reflect more the specific developments of demand and competitiveness in each country. Thus the Netherlands is the only country with a marked increase in the import share of wood and furniture and non-metallic minerals. The same holds for petroleum products in the Federal Republic of Germany.

The same broad picture emerges from the changes in export shares: textiles are listed most often (all countries except France, Norway and the United Kingdom), followed by electrical machinery (four countries). The striking contrasts here are the Netherlands, with ten branches recording changes in export shares of 10 percentage points or more and the Federal Republic of Germany with only two branches. (The Netherlands is also the country with the largest number of branches where import shares rose by 10 points or more.)

The main features of these changes in trade structures can be summarized briefly as follows: import structures have generally changed more than export structures, although there are some exceptions (Belgium, Finland and Norway); as in the case of output, changes in the structures of imports and exports are dominated by just a few branches; and there is a striking similarity in the direction of change of branch shares of total exports *and* imports—throughout western Europe the relatively highly-skilled, capital-intensive industries have increased their shares of both imports and exports, while the shares of unskilled, labour-intensive industries have fallen. It was argued that, for an individual industrial country, the extent of change in its export and import structures would be largely determined by its competitiveness vis-à-vis other industrial countries in the advanced skill and capital intensive branches.

Changes in the ratios of imports and exports to output reveal a continuing rise in the dependence of nearly all manufacturing industries on international specialization: rising shares of exports in gross output were generally accompanied by parallel increases in the import shares. These developments reflect the importance of intra-industry trade among industrial countries, a trade which is probably dominated to a large extent by exchanges of intermediate goods.

The analysis of trade in this chapter has necessarily been in terms of current prices and it is of course possible that the changes in structure might be different in terms of constant prices. However, the pattern of change in output structures was shown in the previous section to be very similar in current and constant prices; a similar parallelism in the case of trade may not therefore be an unreasonable assumption.

4. SUMMARY AND SOME CONCLUSIONS

The dominating feature of this review of changes in the structure of output and employment in west European manufacturing industry in the 1970s is the resilience of the underlying trends which were already evident in the 1960s. There has been some slowing down in the pace of structural change in the 1970s, although not by as much as might have been expected given the large fall in the growth rate of total output. However, the pattern of change is still very similar to that established in the 1960s: the relative importance of chemicals and machinery has continued to grow throughout the period 1968-1978, while that of textiles, clothing, footwear, leather and rubber products has continued to decline. Structural change also continues to be highly concentrated: about one-third of the 18 branches account for about two-thirds of the change in both the output and employment structures.[216]

Although there are some important inter-country differences in the trends for individual branch shares of output and employment (transport equipment is a major example), the basic pattern is much the same for all the individual countries: manufacturing industry is continuing to shift away from traditional unskilled labour-intensive industries, such as textiles and clothing, towards the more advanced, capital- and especially skilled-labour-intensive industries such as chemicals and machinery.[217]

These long-run trends have not been greatly disturbed by the very different environment of the 1970s nor, apparently, by such particular events as the big rise in oil prices. Although any conclusion here must remain tentative given the difficulties of separating cyclical movements from longer run trends in such a relatively short period, the statistical analysis reveals little change in the underlying patterns of structural change after 1973: there is no significant break on the relative growth of the more energy-intensive branches nor is there a marked acceleration in the declining shares of textiles and clothing. There were large disturbances in branch shares of output and employment in the period 1973-1975 but these were largely reversed in subsequent years: the fluctuation in the index of structural change for these years thus appears to reflect the impact of an unprecedented recession on a normal cyclical variation in branch shares. Some significant shifts after 1973 in branch trends were found for a few branches in some countries but their contribution to the over-all amount of change in the period as a whole is small. The conclusion is that the changes in the structure of west European manufacturing industry that have occurred since 1973 are essentially the continuation of underlying trends that were already established before the oil price explosion of 1973 and the recession of 1974-1975.

(i) Energy prices

It is often asserted that, as a result of the large increase in oil prices since 1973, the western industrial economies are going through a period of rapid, and often difficult, structural change. In the sense in which "structural change" has been used in this chapter, the rise in relative energy prices might have been expected to lead to a relative contraction of the more energy-intensive branches. As already noted this does not appear to have occurred. Moreover, in the regression analysis of time trends those branches for which significant shifts in the trend of branch shares were identified were not in general the most energy-intensive ones. Indeed the relative growth trends of the energy-intensive branches, for the period 1968-1978 as a whole, is quite varied, both among products and among countries, although the share of chemicals in total manufacturing output has increased in all countries. A number of reasons can be suggested in explanation of this, although it should be clear that the prediction of changes in the structure of manufacturing output and employment as a result of an increase in the relative price of energy inputs is based on a very simple partial equilibrium analysis.

It is true that two energy-intensive industries, basic metals and chemicals, were particularly hit by the severe 1975 recession, but their behaviour conformed quite closely to traditional business cycle experience. Cyclical fluctuations are typically sharp for these two industries, largely producing intermediate goods, and mainly reflect changes in stockbuilding (and investment activity for basic metals). By 1976, both branches had resumed their pre-recession growth pattern, the chemical industry showing a growth elasticity near to 2 and basic metals a growth elasticity slightly below 1.

In the longer run, the extent to which the rise in energy price is not passed on to output prices mainly depends on productivity growth. It is this factor which has exerted a dominating influence on relative prices; but productivity growth is largely a function of output growth and, in the past, output growth in manufacturing has tended to be greatest in some of the capital and energy-intensive industries making products faced with relatively income-elastic demand.

Inter-industry differences in the growth of wages per head are generally much less than differences in productivity growth. Low productivity, labour-intensive activities will be less able than the high productivity industries to absorb these wage increases and will try to raise final product prices: sheltered service industries will be able to do so quite easily, but for labour-intensive manufacturing industries such as textiles, the attempt may be frustrated by the degree of international competition and hence there are likely to be increased demands for protection from imports. A micro-example of this process was given in last year's Survey in which trends in the components of the cost of running a private motor vehicle were discussed. The evolution of consumer prices for petrol and for repair and maintenance costs, between 1973 and 1978, was as follows (index numbers, 1973 = 100):

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[216] The food industry is perhaps a partial exception to the above generalization in that a slight downward trend (in terms of share) during the 1960s and early 1970s was replaced by a similarly modest upward trend after 1973.

[217] "Skilled-labour intensive industries" is used throughout to denote also industries which are research intensive (as, for example, electrical equipment). However, the two connotations largely coincide.

	1974	*1978*
Austria:		
Petrol	143.4	163.7
Repairs	119.2	169.4
Germany, Federal Republic of:		
Petrol	120.2	128.1
Repairs	109.4	140.2
Sweden:		
Petrol	122.7	170.7
Repairs	111.3	209.1
Switzerland:		
Petrol	128.2	126.4
Repairs	109.7	129.1
United Kingdom:		
Petrol	141.7	198.8
Repairs	117.2	228.2

Source: Economic Commission for Europe, *Economic Survey of Europe in 1979*, United Nations, New York, 1980, table 2.9.

Thus in 1974 there was a sharp increase in the price of the petrol component of private motoring costs; but within a few years (the lag varies between two and four years for the countries listed) the cost of the labour-intensive input (repairs) had caught up with and even surpassed the rise in the petrol price. The initial change in relative input prices thus proved ephemeral.

A similar argument applies also to energy productivity (energy input per unit of final demand), which has increased most in industries such as chemicals, and, at the other end of the scale has even, in some countries, deteriorated in industries such as textiles, clothing and leather.[218] Insofar as the pattern of relative growth rates of individual manufacturing branches is not expected to change very much in the coming decade, these trends in relative energy productivity may also be expected to continue.[219]

These arguments deserve greater elaboration than can be given here, but a second reason can be quoted in explanation of the lack of any relative decline in some of the most energy-intensive branches of manufacturing. This concerns substitution effects which are often much more complicated than is sometimes assumed and which are often difficult to predict on the basis of historical elasticities of substitution. Two of the most energy-intensive manufacturing industries are aluminium and glassmaking, yet both are receiving a positive stimulus to output from energy conservation in other sectors in the economy. The future growth of aluminium is expected to benefit considerably from the switch to aluminium engine castings in the motor vehicle industry, although another energy-intensive sector, iron and steel, will lose from the switch. Similarly glassmakers and aluminium producers will benefit from the increased demand for double-glazing.

Finally, it is relevant to point out that the distribution of energy coefficients tends to be skewed. Thus for 19 manufacturing industries in the United States in 1963, six industries had energy coefficients (BTU's per dollar of final demand) ranging between 0.115 and 0.243 (mean = 0.160, standard deviation = 0.054); the remaining 13 had an average coefficient of 0.060 with a standard deviation of 0.018.[220]

On the whole, current experience shows that many of the shifts in consumption due to relative energy price changes are leading to relative output changes *within* rather than *between* industries. In many cases, they are leading to specific modifications in the characteristics of individual products, the switch from large to smaller motor cars being a prominent example. Insofar as it has worsened inflation and hence led to further lowering of the growth of total output, the rise in the relative price of energy may have had some macro-economic influence on the pace of structural change in manufacturing industry; but at the level of statistical aggregation used in this chapter, the rise in oil prices does not appear to have had a sizeable effect on the structure of output and employment.

(ii) Imports

Public discussion in recent years has often invoked the growth of imports from developing countries as a reason for a supposed acceleration in the decline of industries such as textiles and clothing in the advanced industrial economies of western Europe and north America. However, these arguments do not appear to be very sound. In the first place a number of studies have shown that domestic conditions in general and productivity growth in particular have been "responsible" for the greater part of the fall in employment, the impact of imports being relatively small.[221] And secondly, the data presented in this chapter do not reveal any significant acceleration in the falling relative share of these branches in total manufacturing output: their relative decline continues, but at much the same rate as in the past. Of course, the absolute fall in employment has been large in these branches (as was shown in the section on employment changes, above), but this is largely a reflection of the severity of the 1974-1975 recession and the subsequent period of relatively slow growth. Part of the particular problem of these traditional, labour-intensive industries is that in the 1960s there were frequent attempts to slow down their rate of decline, and even to reverse it; it was widely believed that they could be transformed, with the help of public subsidies and "temporary" import protection, from labour-intensive into capital-intensive industries. This belief, although widespread, was quite unfounded and rested on a confusion between an increase in capital per worker employed in a given industry and a change in capital per worker relative to capital per worker employed in other industries. From the point of view of efficient resource allocation it is the latter concept which is the relevant one, not the former, and as can be seen from the following table, there has been no significant change in the relative factor intensity of textiles and clothing: [222]

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[218] See Economic Commission for Europe, *Increased energy economy and efficiency in the ECE Region*, United Nations, New York 1976, pp. 11-14.

[219] It might be argued that industries with relatively large energy inputs have a greater incentive to increase energy productivity, but this is only part of the story: whether the necessary investment takes place will depend largely on the prospects for growth and profits. An energy intensive enterprise with little prospect of output growth may have a greater incentive to close down.

[220] See Economic Commission for Europe, *Increased energy economy and efficiency in the ECE Region*, United Nations, New York, 1976, p. 20.

[221] See, for example, Vincent Cable, "British Protectionism and LDC Imports", *Overseas Development Institute Review*, No. 2 (1977) and Anne O. Kreuger, "LDC Manufacturing Production and Implications for OECD Comparative Advantage" in Irving Leveson and J. W. Wheeler, *Western Economies in Transition*, Croom Helm, London, 1980. These calculations are based essentially on accounting procedures and do not necessarily indicate causal relationships.

Relative productivity [a] in textiles and clothing and footwear, averages for nine west European countries, 1958-1978

(*Total manufacturing = 100*)

	1958-1960	*1968-1970*	*1970*	*1978*
Textiles				
Average	76.7	74.4	73.4	77.6
Standard deviation	7.2	6.2	5.8	9.6
Clothing and footwear				
Average	54.7	53.6	55.2	52.8
Standard deviation	10.8	11.8	7.1	6.5

[a] Value added per head, at constant factor cost.

It is clear from the table that the position of textiles and clothing relative to other manufacturing industries has not changed significantly: [223] they are still labour-intensive, not capital-intensive industries. However this is not the complete explanation of their relative decline. It has been shown [224] that inter-industry differences in the growth of wages per head are very much smaller than inter-industry differences in productivity growth and that the growth in wages tends to be set by sectors where productivity growth is highest.[225] Consequently in sectors where productivity is relatively low and/or where foreign competition restrains the rate of price increase, profits will be squeezed and long-run competitiveness will decline. In the short run, labour-intensive industries may survive in relatively capital-abundant countries because of the existence of pockets of unskilled labour reserves in agriculture, among female workers and immigrants, but in the longer run the labour-intensive industries must compete in labour markets with the capital-intensive ones. Rising imports of labour-intensive products are thus a consequence of the changing structure of western manufacturing industry towards more capital-intensive, higher-productivity industries, rather than a cause of the decline of the labour-intensive ones.[226]

The present study has emphasized that most of the structural changes that have occurred in manufacturing industry in the 1970s are manifestations of trends that have been well established for at least a decade or more. However, industrial policies in the 1960s do not in general appear to have been formulated against a conscious awareness of the longer-run shifts in the patterns of comparative advantage; [227] policies tended to be more *ad hoc*, supporting a selection of "high technology" projects on the one hand, offering occasional support to traditional industries on the other. In the 1970s policy has been dominated by defensive action in favour of industries whose long-run decline is now exacerbated by severe recession. It is increasingly recognized that this is not in the long-run interests of the west European economies; but even in the short run it may not be effectual. Developing countries have a high marginal propensity to spend their higher export earnings on goods produced in the advanced industrial economies, so that policies to reduce labour-intensive imports from developing countries may only succeed in reducing exports of capital-intensive products from the developed countries.

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[222] The table follows Hal. B. Lary, *Imports of manufactures from less developed countries, NBER*, New York: 1968, in taking value added per worker as a comprehensive indicator of capital intensity.

[223] This is of course in line with the well-established finding that factor-intensity reversals in manufacturing industry are rare and not of great practical importance. The one country where relative textile productivity has risen sharply (from 76 to 95 per cent of the average for total manufacturing between 1970 and 1978) is Sweden. This increase is probably affected by cyclical factors and the differential impact of work-support schemes; but Sweden is also the country with the lowest proportion of textiles in total manufacturing output and so the higher relative productivity may also reflect a greater degree of product rationalization.

[224] See, for example, *Structure and Change*.

[225] This is the basic "tension" described by the "Scandinavian" model of inflation.

[226] Less theoretically, but more graphically, this process has been summed up by one Minister of Industry as: "the chickens are coming home to roost for uncompetitive industries". Department of Industry, *British Business*, London, 7 November 1980, p. 420.

[227] The elaboration of a coherent industrial policy for the developed industrial economies could have been assisted by Lary's analysis, published in 1968, of those areas of manufacturing industry where the developing countries were likely to be able to establish comparative advantages (Hal. B. Lary, *op. cit.*).

APPENDIX TO CHAPTER 4

BASIC STATISTICAL TABLES AND SOURCES

TABLE 4.A.1

Value added at 1970 factor cost, by branch and country, 1970 and 1978

(Percentages)

Branch	Belgium		Finland		France		Germany, Fed. Rep. of		Italy		Netherlands		Norway		Sweden		United Kingdom		Average of nine countries			
																			Unweighted		Weighted	
	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978
Food and drink	12.9	12.6	12.7	11.3	12.7	14.6	9.5	8.6	10.4	10.9	15.6	15.7	14.1	14.3	9.2	9.1	10.6	11.1	12.0	12.0	10.9	11.3
Tobacco	0.7	0.6	0.5	0.4	2.3	11.4	0.5	0.4	0.5	0.4	0.9	0.9	0.3	0.3	0.3	0.4	0.9	0.9	0.8	0.6	0.9	0.7
Textiles	7.8	5.6	4.5	3.9	5.7	3.9	4.5	3.5	8.9	8.1	4.3	2.7	3.5	2.6	3.0	2.5	5.6	4.7	5.3	4.2	5.5	4.3
Clothing and footwear	4.4	3.1	4.7	4.4	3.8	3.2	3.6	2.5	7.2	6.0	2.6	1.3	3.4	1.7	2.7	1.4	3.1	3.4	3.9	3.0	3.9	3.2
Leather	0.4	0.2	0.4	0.3	0.5	0.5	0.5	0.4	1.0	1.0	0.4	0.2	0.4	0.2	0.4	0.3	0.4	0.4	0.5	0.4	0.5	0.4
Wood	4.9	5.5	9.3	7.7	2.7	2.8	3.6	3.7	5.6	6.3	3.8	3.2	8.5	10.0	8.3	8.6	2.9	3.1	5.5	5.7	3.9	4.1
Paper	2.5	2.4	16.8	15.6	2.5	2.2	2.4	2.0	2.5	2.5	2.7	2.5	6.6	5.6	8.3	8.7	3.2	2.9	5.3	4.8	3.1	2.8
Printing	3.2	2.1	5.3	5.6	2.9	2.5	2.6	2.3	3.1	3.1	5.7	5.7	6.6	5.9	7.2	6.8	5.5	5.7	4.7	4.4	3.7	3.4
Chemicals	10.5	13.8	7.1	8.1	10.3	11.0	11.3	13.9	11.8	14.8	15.3	19.1	7.5	8.2	6.2	8.1	10.3	12.9	10.0	12.2	10.8	13.0
Petroleum and coal products	1.4	1.1	2.2	2.6	2.0	2.0	0.9	0.7	1.6	1.3	2.0	2.0	2.0	2.5	0.9	1.1	1.0	0.9	1.5	1.6	1.3	1.3
Rubber	0.7	0.8	0.9	0.7	1.9	1.7	1.4	1.3	1.8	1.5	0.8	0.6	0.9	0.7	1.4	1.0	1.8	1.8	1.3	1.1	1.6	1.4
Non-metallic minerals	5.7	5.5	4.2	3.9	4.7	4.8	5.3	5.0	6.2	5.9	4.7	4.2	3.7	3.5	4.4	3.2	3.6	3.8	4.7	4.4	4.9	4.8
Basic metals	12.4	10.1	4.4	6.6	9.1	6.8	10.5	9.8	7.1	7.6	5.2	4.9	11.5	13.2	8.6	7.4	7.5	5.8	8.5	8.0	9.0	7.9
Metal products	8.3	8.3	5.2	5.4	9.2	5.7	7.6	7.5	7.3	6.1	8.6	8.5	7.2	6.6	9.4	9.1	10.2	9.7	8.1	7.4	8.5	7.3
Non-electrical machinery	8.0	9.0	10.8	12.9	12.1	15.5	13.6	12.8	7.7	7.3	7.6	8.2	6.0	7.5	13.0	13.1	12.6	11.9	10.2	10.9	11.8	12.2
Electrical machinery	7.6	8.9	4.5	5.4	6.3	10.4	11.1	13.7	7.7	7.5	12.3	13.1	5.5	6.6	6.2	8.2	8.6	10.1	7.8	9.3	8.8	11.0
Transport equipment	6.4	7.7	5.5	5.5	9.8	9.5	10.3	11.1	8.3	8.0	6.4	5.1	11.3	9.8	9.9	10.4	11.3	9.8	8.8	8.5	9.7	9.6
Manufacturing n.e.s.	2.3	2.6	0.9	0.8	1.5	1.7	0.8	0.7	1.2	1.8	1.0	2.0	1.0	0.8	0.6	0.7	1.2	1.3	1.1	1.4	1.1	1.3
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

TABLE 4.A.2

Value added at current factor cost, by branch and country, 1970 and 1978

(*Percentages*)

Branch	*Belgium*		*Finland*		*France*		*Germany, Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*United Kingdom*		*Average of nine countries*			
																			Unweighted		*Weighted*	
	1970	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Food and drink	13.0	14.5	12.7	12.3	12.7	15.1	9.5	9.0	10.4	9.8	15.6	16.3	14.1	15.1	9.2	9.4	10.6	10.9	12.0	12.5	10.9	11.4
Tobacco	0.7	0.8	0.5	0.4	2.3	1.1	0.5	0.4	0.5	0.3	0.9	1.0	0.3	0.4	0.3	0.3	0.9	1.1	0.8	0.6	0.9	0.7
Textiles	7.8	5.3	4.5	3.5	5.7	4.2	4.5	2.9	8.9	7.2	4.3	2.5	3.5	1.7	3.0	2.2	5.6	4.7	5.3	3.8	5.5	4.0
Clothing and footwear	4.4	3.9	4.7	4.3	3.8	3.5	3.6	2.5	7.2	8.2	2.6	1.5	3.4	1.7	2.7	1.3	3.1	3.0	3.9	3.3	3.9	3.4
Leather	0.4	0.2	0.4	0.3	0.5	0.5	0.5	0.4	1.0	1.1	0.4	0.3	0.4	0.2	0.4	0.2	0.4	0.4	0.5	0.4	0.5	0.5
Wood	4.9	5.2	9.3	8.4	2.7	2.7	3.6	4.3	5.6	5.8	3.8	3.6	8.5	8.7	8.3	8.8	2.9	3.3	5.5	5.7	3.9	4.3
Paper	2.5	2.1	16.8	12.9	2.5	2.4	2.4	2.0	2.5	2.3	2.7	2.4	6.6	4.6	8.3	6.4	3.2	3.1	5.3	4.3	3.1	2.7
Printing	3.2	3.3	5.3	6.6	2.9	3.2	2.6	2.6	3.1	2.9	5.7	7.4	6.6	7.5	7.2	8.2	5.5	5.2	4.7	5.2	3.7	3.7
Chemicals	10.5	14.1	7.1	7.9	10.3	10.1	11.3	12.3	11.8	11.2	15.3	14.8	7.5	7.6	6.2	7.2	10.3	10.9	10.0	10.7	10.8	11.3
Petroleum and coal products	1.4	1.0	2.2	3.7	2.0	2.0	0.9	0.9	1.6	1.3	2.0	2.0	2.0	2.2	0.9	1.0	1.0	1.4	1.5	1.7	1.3	1.4
Rubber	0.7	0.9	0.9	0.8	1.9	1.9	1.4	1.2	1.8	1.6	0.8	0.6	0.9	0.5	1.4	1.0	1.8	1.6	1.3	1.1	1.6	1.4
Non-metallic minerals	5.7	5.6	4.2	3.9	4.7	5.1	5.3	4.7	6.2	5.7	4.7	4.5	3.7	4.0	4.4	3.7	3.6	4.0	4.7	4.6	4.9	4.7
Basic metals	12.4	7.9	4.4	5.2	9.1	6.8	10.5	9.1	7.1	6.5	5.2	4.6	11.5	8.8	8.6	6.0	7.5	6.0	8.5	6.8	9.0	7.4
Metal products	8.3	8.2	5.2	5.9	9.2	8.1	7.6	8.1	7.3	8.6	8.6	8.3	7.2	7.6	9.4	8.7	10.2	10.5	8.1	8.2	8.5	8.5
Non-electrical machinery	8.0	8.3	10.8	11.5	12.1	12.2	13.6	14.2	7.7	9.2	7.6	9.7	6.0	9.5	13.0	12.6	12.6	12.6	10.2	11.1	11.8	12.4
Electrical machinery	7.6	8.5	4.5	4.9	6.3	6.7	11.1	12.1	7.7	7.7	12.3	12.0	5.5	5.6	6.2	7.9	8.6	8.7	7.8	8.2	8.8	9.4
Transport equipment	6.4	7.3	5.5	6.4	9.8	12.8	10.3	12.4	8.3	9.1	6.4	6.3	11.3	13.7	9.9	14.4	11.3	11.5	8.8	10.4	9.7	11.5
Manufacturing n.e.s.	2.3	2.8	0.9	0.9	1.5	1.7	0.8	0.8	1.2	1.6	1.0	2.0	1.0	0.6	0.6	0.5	11.6	1.1	1.1	1.4	1.1	1.3
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

TABLE 4.A.3

Employment in 1970 and 1978, by branch and country

(Percentages)

	Belgium		*Finland*		*France*		*Germany, Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*United Kingdom*		*Average of nine countries*			
																			Unweighted		*Weighted*	
Branch	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Food and drink	11.2	11.5	12.1	11.8	10.1	10.3	9.3	9.9	8.4	8.1	15.5	16.1	15.0	15.1	8.5	8.4	9.4	9.8	11.1	11.2	9.7	9.9
Tobacco	0.7	0.8	0.3	0.3	0.2	0.1	0.4	0.3	0.3	0.3	1.2	1.1	0.3	0.3	0.1	0.2	0.5	0.5	0.4	0.4	0.4	0.3
Textiles	10.8	8.1	6.6	4.6	7.2	5.4	5.5	4.0	13.6	10.7	6.6	4.2	4.5	3.4	3.9	2.6	7.6	6.4	7.4	5.5	7.8	6.1
Clothing and footwear	7.9	5.9	8.7	7.8	7.5	5.9	6.2	4.6	13.6	13.6	6.0	3.0	4.7	2.9	4.9	2.6	5.6	5.4	7.2	5.8	7.5	6.6
Leather	0.7	0.5	0.8	0.6	1.2	0.9	0.7	0.5	1.2	1.1	0.7	0.5	0.5	0.3	0.5	0.3	0.6	0.5	0.8	0.6	0.8	0.7
Wood	5.4	5.5	12.6	11.3	6.2	6.2	4.7	4.9	9.3	9.0	5.3	5.3	9.2	9.9	9.2	8.8	3.3	3.6	7.2	7.2	5.7	5.9
Paper	2.6	2.3	9.8	10.0	2.4	2.2	2.4	2.1	1.8	1.7	2.8	2.8	6.3	4.9	5.9	6.5	3.1	2.9	4.1	4.0	2.8	2.6
Printing	3.9	3.9	5.9	6.3	3.9	4.0	2.8	2.8	2.6	2.9	6.8	7.8	8.7	8.9	6.4	6.4	4.5	4.6	5.0	5.3	3.8	3.9
Chemicals	6.8	8.6	5.2	5.9	8.0	7.6	8.3	9.2	7.0	7.8	10.0	10.7	6.1	6.8	5.2	6.0	7.2	7.8	7.1	7.8	7.7	8.2
Petroleum and coal products	0.8	0.7	0.5	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.9	1.1	0.5	0.5	0.2	0.3	0.5	0.5	0.5	0.6	0.5	0.5
Rubber	0.9	0.9	1.0	1.0	1.8	2.4	1.4	1.4	1.4	1.4	1.0	0.9	1.1	0.8	1.6	1.2	1.6	1.6	1.3	1.3	1.5	1.6
Non-metallic minerals	7.4	6.5	4.3	4.0	4.8	4.8	4.5	4.3	6.9	6.5	4.3	4.2	3.4	3.4	4.5	3.6	3.7	3.6	4.9	4.5	4.8	4.6
Basic metals	8.5	9.2	2.9	3.8	6.8	5.8	9.4	8.9	4.3	5.0	3.0	3.6	7.4	7.0	6.8	6.8	7.2	6.3	6.3	6.3	7.1	6.7
Metal products	9.7	10.5	5.7	6.4	8.0	8.8	8.0	8.7	7.6	7.8	9.9	9.8	7.6	7.3	10.5	12.7	10.5	10.8	8.6	9.2	8.7	9.2
Non-electrical machinery	7.3	7.7	11.3	11.6	11.1	12.3	13.2	13.1	8.1	8.5	7.7	8.9	5.8	8.1	13.3	13.0	12.4	12.1	10.0	10.6	11.3	11.5
Electrical machinery	7.3	8.5	4.6	6.0	7.1	8.1	11.9	12.4	6.1	7.1	10.5	10.6	5.0	6.0	7.4	8.5	9.3	9.5	7.7	8.5	9.0	9.5
Transport equipment	6.2	7.1	6.6	6.9	11.1	12.3	9.9	11.6	6.1	6.7	6.5	7.5	12.4	13.5	10.2	11.2	11.9	12.6	9.0	9.9	9.7	10.7
Manufacturing n.e.s.	1.8	1.9	1.1	1.1	1.9	2.2	1.0	1.1	1.3	1.4	1.2	1.8	1.6	1.0	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.5
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

TABLE 4.A.4

Relative country specialization [a] in manufacturing output, by branch, 1970 and 1978

(*At 1970 prices*)

Branch	Belgium		Finland		France		Germany, Fed. Rep. of		Italy		Netherlands		Norway		Sweden		United Kingdom	
	1970	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Food, drink	108.3	104.6	105.8	94.2	105.9	121.4	79.8	72.0	87.1	90.4	130.0	130.6	118.0	118.7	76.7	75.4	88.3	92.7
Tobacco	86.1	96.7	67.6	73.7	302.0	191.4	62.9	68.0	61.5	60.7	119.4	153.3	43.4	44.6	44.0	61.7	113.2	149.8
Textiles	147.1	134.4	85.5	94.7	106.7	93.3	85.2	84.4	167.4	194.2	81.3	64.9	65.8	61.4	56.6	59.7	104.4	112.4
Clothing, footwear	111.2	134.4	119.4	146.2	97.3	107.2	90.1	82.1	183.1	201.1	66.8	43.0	85.2	56.8	68.7	46.0	78.1	114.2
Leather	73.3	49.4	89.3	82.5	103.9	118.6	102.8	91.5	207.3	267.9	90.7	62.7	71.6	61.1	71.6	68.0	89.4	98.2
Wood	89.4	97.4	168.2	136.0	49.1	49.8	64.8	66.3	102.2	111.8	68.5	56.3	153.6	177.1	151.3	151.4	53.0	54.0
Paper	46.7	49.3	318.8	302.9	47.5	46.3	44.7	41.6	48.1	52.0	51.5	52.2	125.0	116.2	157.7	180.0	59.9	59.6
Printing	69.2	47.5	112.5	126.3	62.4	56.5	54.8	52.3	66.3	69.8	121.6	130.2	141.3	134.8	154.5	153.4	117.4	129.3
Chemicals	104.5	113.3	71.2	66.0	102.2	89.8	112.8	113.9	118.0	121.0	152.8	156.9	74.7	67.2	61.6	66.5	102.3	105.4
Petroleum	90.1	69.6	142.2	162.8	129.2	127.3	57.9	47.6	102.7	80.3	129.1	127.4	127.2	159.0	58.0	71.8	63.6	54.2
Rubber	51.8	74.3	72.7	61.5	149.2	146.9	111.7	110.9	141.1	133.8	59.3	56.2	68.3	65.5	106.1	91.7	139.8	159.3
Non-metallic minerals	121.2	125.0	89.1	87.5	100.0	109.0	111.4	113.0	132.0	133.7	98.9	94.8	79.3	79.1	92.7	72.7	75.4	85.0
Basic metals	146.2	126.0	52.0	82.1	107.0	85.3	124.2	122.3	83.6	95.0	61.1	60.7	136.2	164.6	100.8	92.1	88.8	72.0
Metal products	101.7	111.8	64.6	73.0	113.6	77.0	93.8	100.4	89.6	81.9	106.3	114.5	89.2	88.2	115.8	122.9	125.4	130.4
Non-electrical machinery	78.7	82.7	106.2	118.1	119.0	142.1	134.2	117.7	75.9	66.8	75.2	74.8	59.1	68.7	127.7	119.9	124.1	109.2
Electrical machinery	97.7	95.2	58.0	57.9	81.2	111.6	143.4	146.2	98.9	80.0	158.9	140.8	71.3	71.2	80.4	88.3	110.2	108.7
Transport	73.0	90.2	62.7	64.1	110.8	111.4	117.0	130.4	94.5	93.5	72.7	59.2	128.4	115.0	112.9	121.6	128.1	114.6
Manufacturing n.e.s.	196.5	191.3	76.6	57.6	133.4	124.6	66.9	52.0	100.7	131.6	87.2	145.0	83.9	55.2	53.8	51.1	100.9	91.5

[a] Specialization is defined as the ratio of the share of each branch in national output to the unweighted mean for the nine countries.

TABLE 4.A.5

Relative country specialization [a] in manufacturing employment, by branch, 1970 and 1978

Branch	Belgium		Finland		France		Germany, Fed. Rep. of		Italy		Netherlands		Norway		Sweden		United Kingdom	
	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978
Food, drink	101.5	102.0	109.7	105.1	91.1	91.7	84.4	88.6	75.9	72.1	139.8	143.8	135.6	134.5	77.3	75.1	84.8	87.0
Tobacco	166.9	185.4	67.7	67.4	37.8	28.7	87.2	69.3	78.1	62.7	260.6	264.0	59.5	61.6	30.6	39.3	111.8	121.7
Textiles	146.6	147.3	89.9	84.5	98.0	98.5	75.2	73.4	183.8	195.0	89.3	75.9	60.7	61.7	53.5	47.8	102.9	115.9
Clothing, footwear	110.0	102.0	120.1	136.1	103.5	103.1	85.2	80.2	187.4	236.0	83.1	52.8	65.5	49.7	67.7	45.6	77.5	94.4
Leather	89.9	83.5	100.9	94.8	159.0	161.8	94.8	93.1	152.4	189.8	96.0	87.3	68.3	44.8	65.0	51.9	73.7	92.9
Wood	74.0	76.4	173.3	158.5	85.2	86.3	64.7	68.0	129.1	125.6	73.9	73.7	127.2	138.2	126.7	122.3	45.9	50.9
Paper	63.8	59.0	236.7	252.4	58.1	56.9	58.4	52.5	43.9	44.0	67.7	71.9	152.9	125.2	143.6	163.8	74.9	74.3
Printing	76.4	73.6	116.6	119.4	78.2	76.3	54.6	52.3	51.9	54.1	135.3	147.9	172.1	167.5	126.4	121.8	88.4	87.1
Chemicals	95.6	109.6	73.3	75.6	113.5	97.2	117.0	117.6	98.4	100.3	141.9	136.5	85.5	86.7	73.2	76.4	101.5	100.0
Petroleum	145.4	126.5	91.8	123.2	116.7	97.7	87.3	67.2	69.3	61.3	166.5	195.6	96.8	91.2	42.6	54.6	83.8	82.7
Rubber	67.1	72.5	77.7	75.6	139.7	184.5	109.5	105.6	109.6	108.6	75.4	71.3	80.4	61.0	119.4	95.7	121.2	125.2
Non-metallic minerals	151.7	143.6	88.2	87.7	99.5	105.7	92.3	93.9	141.4	144.2	88.0	92.0	70.4	74.8	92.5	78.8	75.9	79.3
Basic metals	136.3	146.7	46.6	60.1	108.9	93.1	149.7	142.3	68.5	79.1	48.7	56.7	117.8	112.3	108.8	109.2	114.7	100.6
Metal products	113.2	114.4	66.3	69.2	93.1	95.5	92.5	94.1	88.4	85.0	114.7	107.0	88.6	79.2	121.8	138.0	121.5	117.5
Non-electrical machinery	72.8	73.0	113.2	109.0	110.6	116.3	131.5	123.3	80.8	80.4	77.2	84.3	57.8	76.2	132.4	123.1	123.7	114.5
Electrical machinery	94.9	99.4	60.0	70.1	91.8	94.7	154.9	145.6	79.4	84.0	136.0	124.1	65.1	70.4	96.4	100.4	121.5	111.2
Transport equipment	69.5	71.6	73.2	69.6	123.2	124.0	109.8	116.4	68.3	67.4	72.5	75.6	137.9	136.2	113.3	112.4	132.3	126.8
Manufacturing n.e.s.	134.4	131.7	82.9	79.5	142.0	155.3	76.3	76.8	96.8	97.3	90.0	129.6	115.0	73.9	64.7	56.8	97.9	99.1

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[a] Specialization is defined as the ratio of the share of each branch in national employment to the unweighted mean for the nine countries.

Table 4.A.6

Exports of manufacturing industry, by branch and country, 1970 and 1978

(*Percentages of total national exports*)

Branch	Belgium		Finland		France		Germany, Fed. Rep. of		Italy		Netherlands		Norway		Sweden		Switzerland		United Kingdom		The 10 countries together (weighted average)	
	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978
Food and drink	6.4	8.6	3.6	2.9	10.9	11.1	2.7	4.6	4.6	4.3	20.9	20.1	8.5	4.0	2.0	1.7	6.4	5.3	6.3	7.8	6.8	7.6
Tobacco	0.2	0.2	—	—	—	0.1	—	—	—	—	0.5	0.5	0.1	—	—	0.1	0.1	—	0.1	0.1	0.1	0.1
Textiles	10.0	8.0	3.4	2.7	7.6	4.9	5.3	4.3	12.0	9.5	7.6	5.1	2.0	1.2	2.2	1.8	8.0	6.2	6.7	5.2	7.1	5.4
Clothing and footwear	2.1	1.9	3.4	4.8	2.7	2.4	1.1	1.3	7.6	8.2	1.8	1.4	0.6	0.3	1.1	0.9	1.6	1.3	1.6	1.8	2.3	2.4
Leather	0.5	0.3	0.2	0.3	0.8	0.5	0.5	0.4	1.1	1.5	0.4	0.2	0.4	0.2	0.4	0.4	0.2	0.3	0.7	0.6	0.6	0.6
Wood	1.9	2.3	16.3	13.5	1.2	1.5	1.3	1.8	1.8	3.3	0.9	1.2	1.8	1.7	7.1	7.5	0.6	1.0	0.6	1.1	1.9	2.3
Paper	2.1	1.8	41.3	29.8	1.5	1.5	1.2	1.4	1.0	1.0	2.4	2.0	13.1	6.6	18.6	15.4	0.8	1.1	1.2	1.3	3.4	2.7
Printing	0.7	0.8	0.4	0.6	1.1	0.9	0.8	0.8	0.9	0.8	0.9	0.8	0.2	0.2	0.4	0.5	1.2	1.1	1.3	1.3	0.9	0.9
Chemicals	11.9	15.7	3.6	5.3	12.2	14.8	14.3	14.3	9.2	8.5	16.9	19.9	9.7	7.8	4.7	6.5	23.1	23.5	12.6	14.5	12.8	14.2
Petroleum and coal products	2.6	4.9	0.4	2.6	1.7	2.6	1.0	1.0	5.2	5.9	9.9	12.1	1.6	3.2	0.8	1.7	0.1	0.1	2.3	3.1	2.6	3.5
Rubber	0.6	1.1	0.2	0.2	1.9	1.8	0.8	1.0	1.2	1.2	0.7	0.6	0.5	0.4	0.8	0.8	0.4	0.3	1.3	1.1	1.0	1.0
Non-metallic minerals	3.8	3.1	0.7	1.1	2.3	2.2	2.0	1.9	3.0	4.0	1.2	1.4	1.0	0.8	1.0	1.2	0.7	0.9	1.9	2.0	2.1	2.2
Basic metals	28.4	17.8	6.5	7.7	12.6	9.4	11.0	9.5	4.9	7.1	6.9	6.5	30.2	22.8	12.3	10.4	2.7	4.4	9.8	6.6	11.6	9.2
Metal products	3.4	4.4	2.2	3.3	5.4	5.8	7.3	7.1	5.3	6.4	4.8	5.6	3.2	3.3	4.1	4.8	19.7	17.5	6.6	7.2	6.3	6.7
Non-electrical machinery	7.3	7.9	6.7	9.2	13.3	13.8	22.9	20.8	19.8	16.0	7.5	7.7	5.8	7.1	19.3	18.6	25.1	24.2	19.7	18.5	17.2	16.2
Electrical machinery	5.1	6.0	2.9	3.7	6.5	7.4	8.8	9.8	7.9	6.7	10.0	9.2	4.1	3.9	7.7	9.2	6.6	8.9	7.5	8.4	7.6	8.2
Transport equipment	12.3	14.8	7.7	11.5	17.3	18.3	17.9	18.9	12.1	11.8	6.0	5.3	17.1	29.5	17.2	18.1	1.4	2.6	18.4	18.2	14.7	15.5
Manufacturing n.e.s.	0.4	0.4	0.5	0.8	1.0	1.0	1.2	1.0	2.6	3.6	0.6	0.4	0.1	0.3	0.5	0.4	1.1	2.6	1.2	1.2	1.1	1.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.A.7

Imports of manufacturing industry, by branch and country, 1970 and 1978

(Percentages of total national imports)

Branch	*Belgium*		*Finland*		*France*		*Germany, Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*Switzerland*		*United Kingdom*		*The 10 countries together (weighted average)*	
	1970	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Food and drink	8.5	9.6	4.3	4.5	11.2	11.5	12.1	10.2	14.2	15.9	8.9	10.3	4.2	4.2	6.5	5.9	7.4	6.2	20.9	13.3	11.8	10.7
Tobacco	0.1	0.1	—	—	0.1	0.1	—	0.1	—	—	0.2	0.3	—	—	0.1	—	0.1	0.1	0.1	0.1	0.1	0.1
Textiles	7.5	6.6	8.4	7.5	5.3	6.4	9.4	8.5	6.0	6.2	8.7	6.7	7.0	5.6	7.8	6.0	7.1	6.2	5.7	6.5	7.3	6.9
Clothing and footwear	2.3	3.7	1.2	1.6	1.4	2.5	3.8	6.0	0.7	0.9	3.2	4.9	3.0	4.7	3.5	4.2	3.5	4.6	1.9	3.0	2.5	3.9
Leather	0.4	0.4	0.7	0.8	0.5	0.8	1.0	1.1	0.7	1.2	0.5	0.5	0.5	0.6	0.6	0.6	1.0	0.8	0.6	0.6	0.7	0.8
Wood	2.2	3.4	1.0	1.1	2.6	2.9	2.8	3.3	2.9	2.9	4.0	5.1	2.7	4.0	1.8	2.4	2.8	3.0	5.7	4.0	3.2	3.4
Paper	3.2	2.8	0.8	1.2	3.8	3.3	4.4	3.4	3.8	2.6	3.7	3.3	2.0	2.6	1.2	1.2	2.7	2.3	6.9	4.7	4.0	3.2
Printing	0.9	1.1	0.6	0.7	1.4	1.2	0.4	0.5	0.3	0.2	0.6	0.8	0.6	1.1	0.6	0.7	1.5	1.6	0.8	0.7	0.8	0.8
Chemicals	11.8	14.1	13.5	15.1	12.5	14.6	10.4	11.9	13.9	15.9	11.9	12.8	11.2	11.6	11.7	13.1	13.7	14.1	10.0	10.8	11.6	13.1
Petroleum and coal products	1.8	3.3	3.9	6.1	1.4	2.1	3.5	6.7	1.0	3.5	2.1	4.5	4.0	4.0	7.2	9.2	4.0	5.8	3.4	3.3	2.9	4.6
Rubber	1.1	1.0	1.5	1.4	0.8	1.1	1.1	1.1	0.7	0.9	0.9	0.8	1.1	1.1	1.2	1.3	1.1	1.1	0.4	0.7	0.9	1.0
Non-metallic minerals	2.4	2.5	1.5	1.7	2.2	2.3	2.1	2.2	1.8	1.6	2.8	2.5	1.9	2.0	2.0	1.9	1.9	2.0	1.0	1.1	2.0	2.0
Basic metals	16.4	9.3	15.2	8.7	16.2	10.6	16.9	9.6	18.3	10.4	10.8	7.1	11.7	7.5	13.6	8.7	12.6	7.7	13.4	7.6	15.0	9.0
Metal products	5.2	5.3	5.7	7.9	6.1	6.4	4.3	5.5	4.6	4.9	6.8	6.5	5.5	8.4	6.2	6.9	6.8	7.6	3.9	5.5	5.2	6.0
Non-electrical machinery	11.8	9.6	17.8	16.7	17.4	13.4	11.2	9.6	14.1	11.2	11.9	10.3	13.1	15.6	14.7	14.7	13.3	11.4	12.8	12.9	13.3	11.6
Electrical machinery	6.7	6.6	7.8	9.8	6.0	7.4	6.4	7.6	6.6	7.9	10.3	9.6	6.9	9.2	9.2	9.6	7.6	7.4	5.3	6.9	6.9	7.8
Transport equipment	16.8	19.5	14.9	13.9	10.2	11.9	9.1	11.3	9.6	12.8	11.6	12.9	23.4	16.1	10.7	11.9	10.4	13.2	6.3	16.8	10.6	13.7
Manufacturing n.e.s.	1.0	1.1	1.2	1.2	0.9	1.4	1.3	1.3	0.8	1.0	1.1	1.2	1.2	1.7	1.4	1.5	2.4	3.8	1.0	1.4	1.1	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.A.8

Ratios of exports to gross output by manufacturing branch and country, 1970 and 1978

Branch	Finland		France		Germany Fed. Rep. of		Italy		Netherlands		Norway		Sweden		United Kingdom	
	1970	1978	1970	1978	1970	1978	1970	1978	1970	1978 [a]	1970	1978	1970	1978	1970	1978
Food and drink	5.0	5.9	9.7	13.2	3.4	7.7	5.6	7.8	30.5	35.0	11.1	8.7	3.6	4.6	6.1	10.0
Tobacco	1.0	0.6	0.3	1.7	0.4	1.0	0.1	—	25.1	30.0	5.6	5.5	4.3	11.3	0.2	0.6
Textiles	22.9	36.9	22.6	26.7	23.1	34.2	35.0	49.2	63.2	82.1	21.7	24.0	23.4	35.9	17.5	23.3
Clothing and footwear	27.8	51.5	13.6	17.4	5.8	12.3	25.6	35.3	28.3	44.5	8.1	9.1	13.7	31.6	9.2	15.2
Leather	15.6	29.8	24.6	22.4	18.9	28.5	22.3	32.3	40.6	51.0	47.4	51.6	39.6	64.5	24.4	29.0
Wood	56.3	59.4	6.9	11.2	6.9	11.1	8.0	19.0	14.3	22.2	7.6	7.9	27.5	32.6	3.3	7.9
Paper	66.2	66.5	9.5	13.9	8.9	15.7	7.2	11.2	36.0	42.4	45.3	46.0	62.2	66.9	6.4	8.8
Printing	3.5	5.2	6.6	7.4	5.8	10.3	10.2	13.4	8.1	7.5	1.1	1.1	2.5	3.8	6.2	7.4
Chemicals	1.6	2.9	22.1	34.0	23.4	25.6	21.5	21.8	61.0	72.7	42.4	40.3	24.2	36.6	19.2	25.6
Petroleum and coal products	3.8	13.0	4.2	5.6	5.9	6.0	42.9	35.4	. .	. .	16.4	17.5	14.3	15.7	13.3	13.4
Rubber	10.5	14.6	23.2	31.5	11.7	21.8	18.1	30.9	44.3	54.8	21.2	32.1	22.3	38.5	14.3	17.5
Non-metallic minerals	6.8	13.4	11.0	13.8	8.9	11.6	14.6	29.1	17.0	29.3	10.6	8.0	8.1	15.6	10.2	14.3
Basic metals	24.7	37.8	20.6	27.2	16.8	23.0	13.6	29.9	33.6	45.9	71.1	81.3	36.3	51.2	16.1	19.2
Metal products	14.5	28.7	13.4	23.4	20.7	25.0	18.1	29.7	31.4	47.7	18.0	20.4	15.8	25.6	11.9	16.9
Non-electrical machinery	25.5	42.9	23.9	35.7	35.2	41.3	56.0	65.1	57.8	66.8	37.8	24.2	52.9	66.4	30.6	38.7
Electrical machinery	24.0	35.2	21.4	32.5	16.9	23.5	25.2	34.9	46.7	60.5	27.2	25.5	40.8	59.0	15.9	25.1
Transport equipment	46.1	82.0	29.3	36.1	30.9	35.7	30.8	46.4	42.2	56.5	47.5	88.0	46.4	51.4	26.8	38.3
Manufacturing n.e.s.	27.0	46.6	14.5	18.3	36.8	38.2	62.4	96.4	28.9	12.8	6.4	15.0	29.3	36.8	27.4	37.4
TOTAL	28.9	36.2	16.5	22.4	18.0	23.2	22.0	30.5	37.9 [b]	47.1 [b]	29.7	30.6	29.5	38.1	15.3	20.8

[a] 1977 figures.

[b] Excluding petroleum and coal products.

TABLE 4.A.9

Ratios of imports to gross output, by manufacturing branch and country, 1970 and 1978

Branch	*Finland*		*France*		*Germany Fed. Rep. of*		*Italy*		*Netherlands*		*Norway*		*Sweden*		*United Kingdom*	
	1970	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*	*1970*	*1978* [a]	*1970*	*1978*	*1970*	*1978*	*1970*	*1978*
Food and drink	5.7	6.4	9.0	11.5	10.0	11.2	13.9	18.6	13.3	17.7	7.8	7.3	11.4	13.1	17.3	16.4
Tobacco	3.2	1.8	0.6	2.6	0.9	3.3	0.5	0.6	12.8	13.1	5.3	6.2	6.6	5.1	0.3	0.7
Textiles	55.5	70.7	14.5	29.2	27.0	44.0	14.0	20.7	74.4	97.1	107.4	117.1	81.0	98.9	12.7	27.9
Clothing and footwear	9.5	11.8	6.3	15.3	13.4	37.3	1.9	2.5	51.3	142.9	59.3	158.4	43.5	119.2	9.7	24.6
Leather	48.3	57.4	14.6	28.1	27.0	46.4	12.0	16.2	43.5	89.4	80.4	136.1	54.8	80.8	16.7	28.4
Wood	3.3	3.3	14.0	19.0	9.3	13.1	10.5	10.7	62.8	87.1	16.3	20.4	6.9	8.8	28.3	27.6
Paper	1.2	1.8	21.4	25.6	22.1	25.6	22.3	19.6	57.8	66.2	9.8	18.9	4.0	4.4	30.6	32.0
Printing	5.2	4.3	8.0	8.4	2.0	4.2	2.9	2.5	5.5	6.6	5.3	8.0	4.0	4.7	3.1	3.9
Chemicals	5.7	5.8	20.7	28.3	11.2	14.0	26.2	26.3	43.9	44.8	69.6	63.3	57.9	60.6	13.1	18.4
Petroleum and coal products	38.7	21.0	3.0	3.8	13.2	25.5	6.8	13.4	..	..	59.9	28.8	126.7	70.9	17.0	13.6
Rubber	71.4	68.8	8.8	16.5	10.5	16.8	8.7	14.4	53.1	64.6	67.5	128.9	30.8	55.6	4.2	11.0
Non-metallic minerals	14.0	14.4	9.8	12.0	6.0	8.5	7.1	7.3	39.6	52.0	28.1	25.0	16.2	21.0	4.6	7.7
Basic metals	55.8	29.9	24.2	25.8	17.0	15.3	41.2	28.5	53.5	48.3	39.5	35.1	38.7	35.5	18.9	21.4
Metal products	36.6	48.1	13.8	21.6	8.2	12.8	12.7	14.5	45.6	52.2	43.9	67.7	23.1	30.1	6.0	12.3
Non-electrical machinery	65.6	53.7	28.4	29.1	11.4	12.6	32.1	29.3	93.7	84.7	121.8	69.9	38.8	43.5	17.0	25.9
Electrical machinery	61.4	64.2	17.9	27.4	8.1	12.0	17.0	26.7	49.6	57.0	66.5	79.5	47.2	51.0	9.6	20.0
Transport equipment	86.3	68.3	15.7	19.7	10.5	14.1	64.1	70.0	83.6	104.2	92.8	62.9	27.9	27.9	7.8	34.0
Manufacturing n.e.s.	61.5	50.1	12.9	20.2	26.4	32.3	14.9	16.3	58.8	37.7	78.5	114.0	79.0	103.8	19.6	40.1
TOTAL	27.8	25.0	15.1	18.8	11.9	15.3	17.7	19.7	42.2 [b]	47.5 [b]	42.5	40.1	28.5	31.5	13.1	20.0

[a] 1977 figures.

[b] Excluding petroleum and coal products.

TABLE 4.A.10

The 18-branch breakdown of total manufacturing

Branch [a]	ISIC (1968), Major Group Codes
1. Food manufacturing and beverage industries	311-312, 313
2. Tobacco manufactures	314
3. Textiles	321
4. Clothing and footwear	322, 324
5. Leather and leather products	323
6. Wood and wood products and furniture and fixtures	331, 332
7. Paper and paper products	341
8. Printing, publishing and allied industries	342
9. Chemicals, and plastic products, n.e.s.	351, 352, 356
10. Petroleum refineries, and miscellaneous products of petroleum and coal	353, 354
11. Rubber products	355
12. Non-metallic mineral products [b]	361, 362, 369
13. Basic metal industries [c]	371, 372
14. Fabricated metal products, and scientific instruments	381, 385
15. Non-electrical machinery	382
16. Electrical machinery and appliances	383
17. Transport equipment	384
18. Other manufacturing industries [d]	390

[a] Some of these branch headings are abbreviated and some are further abbreviated in the text and tables in this chapter. For full descriptions see United Nations, *International Standard Industrial Classification of All Economic Activities*, New York, 1968.

[b] Pottery, china, glass and glassware, structural clay products, cement, etc.

[c] Iron and steel, and non-ferrous metal basic industries.

[d] *Inter alia*, jewellery, musical instruments, sports goods, toys, etc.

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APPENDIX TABLE

SUPPLY AND USE OF RESOURCES

Supply and use of resources

(Percentage change over previous year, in volume)

Country and base year of price index	GDP at market prices	Imports of goods and services	Total resources	Total domestic demand [a]	Gross domestic fixed capital formation: Total	Residential construction	Other construction	Machinery and equipment	Private consumption	Public consumption	Exports of goods and services
Austria (1964)											
1970-1973	6.0	11.9	7.5	6.5	8.5	8.7		8.5	5.8	4.4	10.3
1974-1978	2.7	5.3	3.4	2.4	1.0	0.6		1.7	3.0	4.2	6.0
1979	5.1	11.1	6.8	5.8	4.2	0.5		8.8	4.7	3.0	9.1
1980 M	3.6	7.9	4.0	2.9	4.4	−0.7		10.2	1.6	2.0	9.3
1981 M	−0.5	−3.0	−0.2	−2.5	−1.3	−3.0		−0.5	−1.0	2.0	−1.3
Belgium (1975)											
1970-1973	5.4	9.9	6.8	5.3	4.2	4.4	4.9	4.7	5.7	5.1	10.2
1974-1978	2.4	5.7	3.5	2.6	2.1	6.9	0.1		2.7	4.5	5.3
1979	2.4	7.9	4.4	3.5	−0.6	−12.5	5.6		4.6	2.7	5.9
1980 [b] O	1.4	3.3	2.1	1.8	2.8	−3.0	5.3		1.8	1.1	2.7
1981 [b] O	1.1	2.7	1.7	1.3	2.4	—	3.3		1.4	0.8	2.4
Denmark (1970)											
1970-1973	3.9	6.4	4.5	4.0	5.4	8.1	2.7	5.7	3.0	4.8	6.1
1974-1978	1.9	2.0	1.9	1.5	−0.8	−5.4	—	3.6	2.2	3.8	3.2
1979	3.5	6.2	4.2	2.5	−3.1	−4.2	−7.1	1.1	3.0	5.4	9.3
1980 D	−1.0	−5.5	−2.0	−4.5	−15.0	−22.5	−11.5		−4.0	5.5	5.5
1981 D	−0.9	−3.3	−1.5	−2.2	−5.6	−10.0	−3.7		−2.5	0.8	0.6
Finland (1975)											
1970-1973	6.1	9.1	6.7	6.0	8.0	10.7	5.9	8.8	5.6	6.0	7.2
1974-1978	1.4	−1.0	0.8	−0.5	−2.7	−0.5	−2.4	−4.5	1.5	5.2	3.7
1979	7.2	16.4	9.1	10.0	4.5	−3.4	1.7	14.9	5.0	3.3	8.6
1980 J	5.5	11.5	6.5	6.0	12.5	7.5	10.3	19.5	3.0	3.0	9.0
1981 J	3.0	0.5	2.5	3.0	5.5	..	..	..	3.0	3.0	1.0
France (preceding year)											
1970-1973	5.6	11.6	6.5	5.4	6.3	7.5	1.2	9.1	5.7	3.8	13.0
1974-1978	2.8	4.4	3.0	2.5	—	0.4[c]	−0.2		3.7	3.5	6.4
1979	3.2	10.9	4.5	3.9	2.5	3.6[c]	2.1		3.2	2.5	7.3
1980 O	2.2	3.0	2.3	2.0	2.5	0.5[c]	3.2		2.0	2.7	3.5
1981 O	1.6	0.3	1.3	0.9	0.5	−1.6[c]	1.2		1.9	2.0	3.2
Germany, Federal Republic of [b] (1970)											
1970-1973	4.4	8.6	5.1	4.5	5.2	6.5	3.8	5.9	4.8	5.3	7.8
1974-1978	2.1	5.7	2.8	2.1	0.1	−2.8	−0.3	2.5	2.8	3.1	5.1
1979	4.5	11.2	5.9	6.1	8.7	8.1	8.1	9.5	3.2	2.9	5.4
1980 J	1.8	5.7	2.7	1.8	4.1	4.9		3.0	1.7	2.8	5.5
1981 J	−0.5	−0.5	−0.5	−1.0	−1.5	..		..	1.0	—	1.0

Supply and use of resources *(continued)*

Country and base year of price index	GDP at market prices	Imports of goods and services	Total resources	Total domestic demand [a]	Gross domestic fixed capital formation				Private consumption	Public consumption	Exports of goods and services
					Total	Residential construction	Other construction	Machinery and equipment			
Ireland (1975)											
1970-1973	4.0	8.1	5.3	5.0	8.1	14.3	4.6	8.4	3.7	7.5	6.0
1974-1978	4.0	7.0	4.5	2.9	3.9	4.4	1.0	6.2	2.5	4.8	8.4
1979	1.9	14.7	6.9	7.0	15.6	..	..	..	3.6	3.5	6.7
1980 S	1.75	−7.0	−1.75	−5.7	−11.25	..	..	..	−1.5	1.0	6.75
1981	..										
Italy (1970)											
1970-1973	4.2	10.0	5.0	4.7	2.1	−3.9	0.7	8.5	4.9	3.6	7.1
1974-1978	2.2	2.9	2.3	1.0	−1.5	−1.9	−1.5	−1.0	2.0	2.6	8.7
1979	5.0	14.0	6.4	5.8	4.5	1.2	3.0	7.6	5.1	2.7	8.9
1980 D	3.5	6.0	4.0	5.8	8.3	4.0		14.0	4.0	2.2	−3.0
1981 J	—										
Netherlands (1975)											
1970-1973	5.0	9.2	6.4	4.0	3.7	6.8	−1.4	6.5	4.4	3.0	11.6
1974-1978	2.5	2.9	2.6	2.9	0.8	0.2	0.4	2.1	4.0	3.3	2.2
1979	2.2	5.8	3.5	1.3	—	−5.2	−2.5	5.0	2.2	2.9	7.7
1980 [b] S	1.0	1.5	1.0	—	0.1	4.5	−1.5		0.5	1.0	3.0
1981 [b] S	0.5[d]	0.5	0.5	−0.5	−3.0	−2.5	−3.5		—	1.0	2.0
Norway (1975)											
1970-1973	4.0	8.4	5.2	5.0	10.8[e]	7.1	4.4	18.7[e]	2.6	5.6	5.9
1974-1978	4.6	2.8	4.0	3.4	3.6[e]	4.3	6.3	2.4[e]	3.6	5.5	5.5
1979	3.2	−1.5	1.8	2.8	−8.7[e]	0.4	−5.3	−15.1[e]	0.7	2.2	−0.4
1980 O	4.1	3.2	3.8	3.2	4.2[e]	1.1	4.9[e]		1.5	4.9	5.2
1981 O	1.0	3.2	1.7	2.7	3.5[e]	1.1	4.0[e]		2.0	4.2	−0.5
Sweden (1975)											
1970-1973	2.5	4.3	2.8	1.4	2.0	−1.5	1.4	5.1	1.1	3.8	7.9
1974-1978	1.4	1.7	1.5	1.4	−1.6	−0.8	−1.7	−0.7	2.0	3.6	1.8
1979	3.7	13.0	5.7	5.7	5.3	3.1	−0.5	12.2	2.7	4.3	5.8
1980 J	2.2	1.3	2.0	2.9	1.5	−8.0	6.7	5.0	0.3	2.9	−0.7
1981 J	0.7	−1.4	0.2	−0.4	−0.4	−2.0	−0.9	0.8	−0.3	2.1	2.5
Switzerland (1970)											
1970-1973	4.2	8.5	5.3	5.0	6.7	7.1		6.0	4.6	4.0	6.2
1974-1978	−0.9	3.4	0.3	−0.9	−4.1	−4.7		−1.0	0.6	1.3	3.4
1979	2.2	7.3	3.8	3.9	5.2	4.9		5.8	1.0	1.3	3.5
1980 D	3.0	7.5	4.5	3.75	8.0	8.0		8.0	2.5	1.0	6.25
1981 D	0.25	1.25	0.5	—	1.75	1.0		3.0	1.25	1.5	1.5

United Kingdom (1975)											
1970-1973	3.7	7.9	4.6	4.2	2.8	—	2.6	4.4	4.0	3.3	6.6
1974-1978	1.3	0.6	1.2	—	—	—	−2.2	1.5	0.5	2.2	4.4
1979	1.3	11.0	3.4	3.6	−1.4	−11.7	−6.5	6.5	4.7	2.0	2.7
1980 M	−1.4	−3.5	−1.9	−2.5	−2.2	..	..	..	0.6	2.2	0.4
1981 M	−2.0	−2.5	−2.0	−1.0	−4.5	..	..	..	−1.0	−1.0	−5.5
Canada (1971)											
1970-1973	5.8	7.8	6.2	5.8	6.8	10.3	4.1	8.6	6.2	5.5	7.7
1974-1978	3.3	3.9	3.4	3.4	2.2	0.3	2.9	3.2	4.4	2.7	3.6
1979	2.7	5.9	3.4	3.6	4.3	−7.5	6.4	9.0	1.9	−1.0	2.6
1980 O	−1.0	−2.4	−1.3	−1.0	1.9[f]	−13.8	6.4		0.2	−0.6[f]	−2.4
1981 O	1.0	2.0	1.2	0.9	1.4[f]	4.6	0.7		1.3	—[f]	2.4
United States (1972)											
1970-1973	3.5	6.3	3.6	3.3	3.7	9.1	−0.6	5.2	4.2	−0.1	9.2
1974-1978	2.6	4.9	2.7	2.6	0.9	2.2	−1.5	2.5	3.2	2.2	4.1
1979[b]	3.1	6.0	3.4	2.3	3.1[f]	−5.3	8.7	5.5	2.9	1.4[f]	15.2
1980[b] J	−0.2	−0.9	−0.2	−1.3	−7.8[f]	−19.6	−1.0	−4.4	0.2	2.9[f]	10.2
1981[b] J	1.7	..	..	..	..	..	..	..	..	..	..

Sources: Replies to United Nations *Questionnaires on national accounts*, and: Austria: Österreichisches Institut für Wirtschaftsforschung, *Monatsberichte*, No. 3/1981; Belgium: Institut National de Statistique, *Les comptes nationaux de la Belgique 1970-1979*, and *Budget des recettes et des dépenses pour l'année budgétaire 1981*, October 1980; Denmark: *Konjunkturoversigt*, December 1980, and *Dansk Økonomi*, December 1980; Finland: *Economic Survey 1980*, September 1980, *Statistical Reports*, No. KT 1981:1, and Ministry of Finance, *Conjunctural Survey*, 27 January 1981; France: *Rapport sur les Comptes de la Nation 1979*, and *Comptes Prévisionnels de la Nation pour 1980 et principales hypothèses économiques pour 1981*; Germany, Federal Republic of: Wirtschaft und Statistik No. 9/1980 and No. 1/1981, *Jahreswirtschaftsbericht 1981 der Bundesregierung*, January 1981, and Deutsches Institut für Wirtschaftsforschung, *Wochenbericht*, No. 1-2/1981; Ireland: The Economic and Social Research Institute, *Quarterly Economic Commentary*, September 1980, and *Economic Review and Outlook*, Summer 1980; Italy: *Relazione generale sulla situazione economica del paese 1979*, ISPE and ISCO; Netherlands: *Nationale Rekeningen 1979*, and Central Planning Bureau, *Macro Economische Verkenning 1981*, September 1980; Norway: *National Budget 1981*, September 1980; Sweden: *Nationalräkenskaper 1970-1979*, and *Preliminary National Budget 1981*, January 1981; Switzerland: *Wirtschaftsspiegel*, No. 12/1980; United Kingdom: C.S.O., *Press and Information Service*, (81)27, 20 March 1981 and H. M. Treasury, *Financial Statement and Budget Report 1981-82*, London 1981; Canada: *Bank of Canada Review*, and Department of Finance, *The Medium-Term Prospects for the Canadian Economy 1980-1985*, October 1980; United States: *Economic Report of the President*, January 1981.

Note: Key to the months in which data were released:

S = September 1980
O = October 1980
N = November 1980
D = December 1980
J = January 1981
M = March 1981

[a] Including stock changes.

[b] Gross national product.

[c] Household investment.

[d] A more recent forecast shows no growth of GDP for 1981.

[e] Including ships and oil exploration;

	Data excluding ships and oil exploration are:		*Data excluding ships are:*	
	Total GDFCF	*Machinery and equipment*	*Total GDFCF*	*Machinery and equipment*
1978	−1.0	−13.6	−7.7	−21.3
1979	−3.0	−4.9	−9.8	−17.9
1980	0.6	..	2.2	..
1981	2.2	..	−1.3	..

[f] Government fixed capital formation is included with government consumption.

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